THE BUILDER

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WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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THE PRESIDENT'S ADDRESS

THOSE who criticise the Royal Institute of British Architects for its alleged inactivity in attempting to preserve the amenities of our towns, our villages and the countryside, might with advantage to themselves and those who listen to them read the eloquent and at the same time practical address which the President read at the opening meeting of the new session on Monday. The task of the President of such a body, in an address which is to appeal to laymen as well as to practising architects, is no easy one if he is to satisfy at one and the same time the artistic leanings of some and the practical activities of others, but in our opinion Mr. Dawber achieved an undoubted success in showing, in his remarks on the preservation of the best characteristics of our towns and villages and the beauty of the English countryside, that practical and æsthetic questions can often be one and the same. We believe this is the right manner in which to approach questions which affect the general public as well as architects, and that the address will do much to stimulate public opinion, without which, as we recently remarked, little or nothing can be done to improve the standard of design of our buildings or to limit the uncontrolled and often ignorant and baneful activities of public bodies, as well as private individuals, "exercising their right to do what they like with their own." Where the exercise of these rights tends to become inimical to the public there is a growing belief that public interests should be considered first. In response to the widespread demand for their removal, the great petrol supply companies caused, to their very great credit, their wayside advertisements to be removed, but in the villages and towns themselves we have the evil in an exaggerated form, for not only are there "the red and yellow pumps" which hit the Minister of Health in the eye, as he told his hearers in his admirable speech on Monday, but there are many other examples of the desecration of our towns and countryside, not the least serious being the huge and altogether ugly corrugated iron garages, often placed in the most conspicuous position in a town or village. In one of our most delightful villages, famous for its natural beauty, we recently saw two of these structures dominating a lovely valley, while in another village a charming little cottage which, we believe, had been in the possession of a certain family for many years, was being sold because one of these structures had been erected adjoining it. We believe, with the President, that these processes should be stopped, and that the time is ripe for efforts to be made to curtail a freedom which is against the best interests of the country and of the villages themselves, and really inimical in the long run to the individuals directly responsible. This abuse of freedom is, unfortunately, increasing, and as roads are being more and more used action is necessary if, as the Minister of Health remarked, "the character of old England as it is represented to-day in the country villages and towns is to be preserved," and it is gratifying to note that he is a "whole-hearted supporter and ally of the President" in any effort he might make to that effect.

We are glad to know that a Council has been formed for the Preservation of Rural England, and that its objects, which are to be explained at a forthcoming meeting, are to organise concerted action to secure the protection of rural scenery and the beauty of country towns and villages from disfigurement or injury; to assist existing organisations to secure the preservation of buildings and places of historic interest or of natural beauty; to act as a centre through its constituent members for furnishing or procuring advice and information upon any matters affecting the protection of such amenities; and to arouse and educate public opinion in order to ensure the promotion of the objects of the Council. We can reasonably hope for valuable results from such a body, which will have the blessing of all those—and they are many—who set a value upon the preservation of all that is best in our charming old villages and towns and who know how great has been our loss already through the apathy or ignorance of past and present generations.

We were glad to hear the Minister refer to the improved standard of many of the houses erected since the war—examples, he said, "which if they were not ideal were at any rate a vast deal better than the sort of building that used to go on before the war." Mr. Chamberlain stands before us as a Daniel come to judgment, for he tells us of two housing schemes he has recently seen—one a dull and monotonous scheme without imagination, which did no more than provide habitation for some human beings, and the other a scheme in which the arrangement of the houses showed variety and appreciation of architectural effect, and were so satisfactory that he said to the officer of the local authority: "You have had an architect here?" and, we are told, "the officer admitted the soft impeachment." A question of this kind is what we should expect from a Minister of the Crown, but it is pleasing to know that the difference in the type of work was at once noticed and the superior standard immediately attributed to the right cause. It is this kind of knowledge we want the educated public to possess, for then will the President's remark that "architecture is everybody's business" be nearer the mark, for it is all too true, as he adds, that as a rule it is regarded with indifference; "the public omits to employ architects and then blames them for sins they have not committed."

On this question of housing we think the President might have said something to correct the statements which were recently made in some obituary notices in the daily Press, and which were a serious slur on the profession, *i.e.*, that the National Housing schemes had been a failure because "the tremendous effort to house the people had been 'bled white.'" It is obvious to-day, and it was obvious to the impartial observer then, that our National Housing Schemes failed through a complete miscalculation of the most ordinary economic laws running counter to the flamboyant statements and schemes of our politicians; no doubt certain architects made mistakes, but the problem in itself was far beyond any influence which they might have exerted, and instead of bleeding anyone white, many architects were never paid for a great deal of work they did.

We regret we cannot find space to comment on all the matters of interest discussed by the President, but we will quote one passage in conclusion, as it affords a fitting commentary upon the recent criticism of the Institute, that it should concentrate its whole force against the erection of ugly buildings. London, he says, is being degraded by the erection of buildings by "construction syndicates," many of which lack all sense of design or dignity, "built on our main thoroughfares and, we can only assume, approved by our local authorities." Undoubtedly there is a need for some controlling influence to prevent the defacement of fine sites by inappropriate buildings, and unless we profit by the mistakes of the past and present and avail ourselves of opportunities as they occur, we may well despair of any rapid improvements in the future, though we do not look for help from any controlling voice or authority, except the voice of a better informed and educated public.

NOTES

The Craft Shop and Exhibitions.

A VERY significant sign of the changes which the post-industrial period is bringing along with it, is the increase of the small workshop, and craftsmen's industries. These new industries, conducted either by individual craftsmen or by larger groups of the same, show that the market is growing for them. This is a very welcome sign, for it will have its reactions no less on industry itself than on the standard of home life. If the independent craftsman can thus find a place, his growing success tends all the time to make a market for others, and it would seem that mass production, instead of absorbing him, tends now to promote his efforts. We all really love the personal attribute in work, the friendly touch which the hand alone can contribute to it, and the success of these new industries may have an important bearing on the future of industry. The too exclusive preconceptions of the craft worker under Victorian ideals separated his work and life too much from the ordinary person. Wrapped up in his own exclusiveness, the people passed by on the other side. But it is the ordinary person with the ordinary purse that has to be met, and this new, more practical adventure aims to meet him We have before us as we write the prospectuses of several craft industries and exhibitions of craftsmen's work, to which we shall refer later.

"According to Plan."

A LITTLE series of articles issued in pamphlet form by the Design and Industries Association is full of vivacity and interest. They are directed to show "the need of plan in every-day life and things," and the subjects dealt with are concerned with suitable form and decoration. Very useful remarks are made in regard to the obsession for sprawling flowers. We see the most dreadful example of this in some wall-paper designing, in which enormous flowers explode all over the wall, reiterating themselves with harrowing emphasis. This abuse of the beauty of flowers betrays a shocking insensibility to their lovely nature. We think of examples in which, not content with the explosion all over the walls, the frieze line is formed by one still greater, as though a herbacious border had gone mad! We do not want the nightmare of a Horticultural Show over our walls. How much better, as suggested in one of the articles to which we refer, to have a house "not hampered by a futile or persistent rivalry, and on whose ungarlanded walls is traced that most lively and delicate of all decorations, the shadow, that 'walks with the earth by day, and talks with the lamps at night.'",

Birmingham Civic Society.

THE reports of the Birmingham Civic Society are always interesting, and that for 1925–1926, which has just reached us, contains gratifying evidence of its useful activities. During the past year the existence was threatened of the interesting seventeenth-century, half-timber Stratford House. Owing doubtless to the influential support of the Society, efforts by the Press, the Archæological Association, and members of the City Council, there seems every prospect that this pleasing relic of the past will be preserved. The efforts made by the Society to obtain a better scheme for the new road across New-street to the junction of Bristol-street with Essex-street are indicated in this report and on the face of it the proposals of the Society deserve close attention, as it is claimed they provide better æsthetic results at a less cost. We shall be interested to see whether an amendment of the original scheme is found possible. Some interesting drawings of the garden work at Aston Hall appear on pp. 11 and 12. The improvement works here appear to be gradually developing.

From the Report of the Birmingham Civic Society.

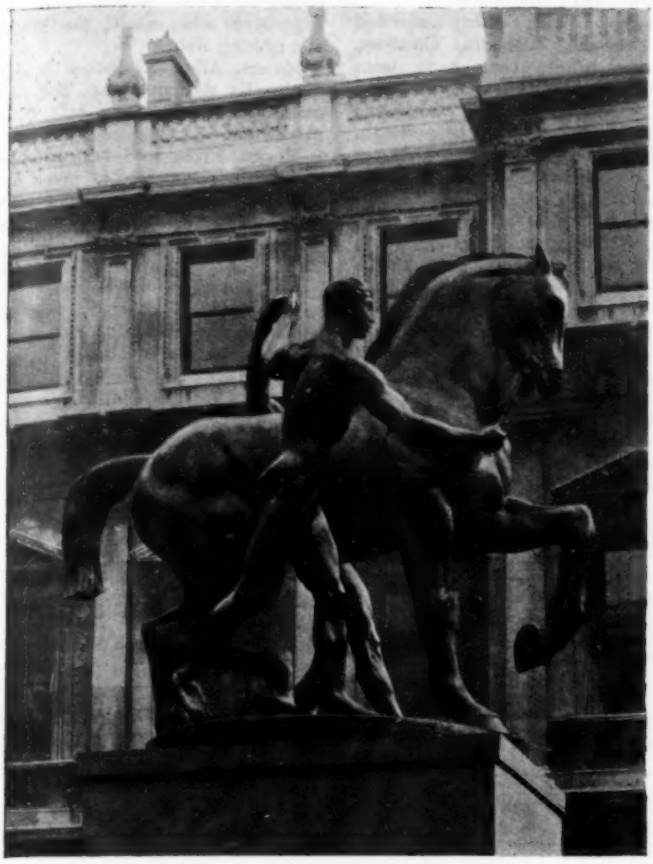
Stratford House, Moseley Road, Birmingham.

The Rent Acts.

WITH the fall in the cost of production of houses inequalities in rents are certain to arise in the future, and the ill-advised Rent Acts have imbued tenants with the idea that all rents should be equalised according to grade. The Wheatley Act contained an ill-devised provision to meet this point in houses erected by the local authorities, referring rents back to the pre-war date, August 3, 1914, but the subsidy was higher and its duration longer than under the Act of 1923, which has produced far more houses. It is to be hoped that the artificial attempt to stabilise rents by reference to August 1914 will be abandoned at the earliest possible moment, as it has introduced an entirely unworkable principle in connection with rent. There is the greatest necessity to cheapen the production of houses to meet the requirements of the poorer population, and it is to be hoped that rents will steadily fall; but the effect of success in this direction must inevitably lead to a gradient between houses of the same class erected in the earlier periods after the war and those erected now that all human ingenuity has been expended on lowering costs of production. Hence, in a degree, the same position may arise as was the case in the early period after the war as between pre-war houses and the newer ones. The Rent Acts were originally only introduced to prevent persons concentrated in certain areas for war purposes being exploited in finding accommodation; but the nation took to Rent Restriction worse than to drink, and the limits as to rent and rateable value upon which restriction was based, rose like a thermometer placed in hot water, with the result that the lawyers were enriched and the Courts overworked, while the population were, as far as possible, prevented from taking houses on any agreement.

Housing Figures.

THE latest figures as to housing, now brought up to September 30, continue to show satisfactory progress. The total number of houses built since the war is 753,400, of which 195,895 have been built in the twelve months ending September 30 last. In an article in *The Times* it is stated that 70,000 houses are required each year to meet the increase in population, whilst 30,000 more houses are required to replace old houses which have become unfit for occupation. It was recently stated by Sir Kingsley Wood that the output for the year ending



Model of Bronze Sculpture Group (Castor and Pollux) on the South African War Memorial, Delville Wood.

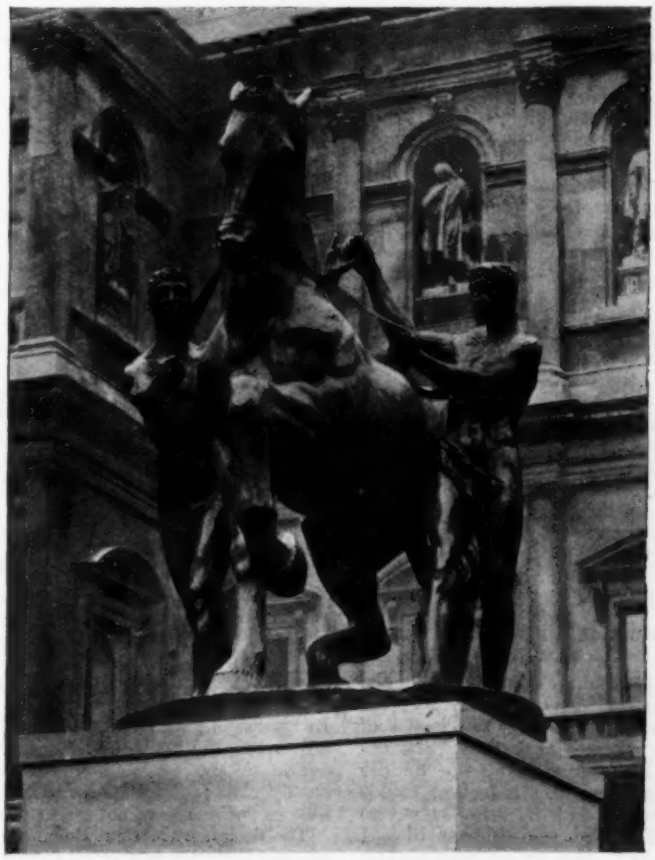
Sir Herbert Baker, A.R.A., Architect. Mr. Alfred Turner, A.R.A., Sculptor.

March 31 was three times greater than the average for the five years preceding the war, and since the figures for March appeared progress seems to have been accelerated.

Wind Pressure on Tall Buildings. A series of tests that will be watched with interest are now being undertaken by a responsible committee on what is stated to be the highest chimney in the world. The stack is situated at Duluth, U.S.A., and instruments have been installed at various positions in the height of the chimney to ascertain wind-pressures at different heights, and the extent to which the stack is moved by different velocities. Tests will also be made to ascertain the rate of cooling of the gases as they pass up the chimney, and the effect of these gases on the reinforced concrete of which the chimney is built. We are informed that a full report of these tests will be available in twelve months' time. They will be looked forward to with interest by those interested in the design of such structures.

Big Ben. An appeal has been made for a new bell to replace Big Ben by a member of the Ancient Society of College Youths, said to be England's oldest bell-ringing fraternity. Referring to the bell's chime, he said that "Big Ben is terrible anywhere. Professional bell-ringers agree that it is the worst bell in the world, and it is cracked so badly that you can stick your arm through the fracture." We believe that Big Ben undoubtedly is fractured—though not to the extent mentioned—but that is by no means an uncommon condition for a bell to be in. Any extension of the crack has been rendered impossible and the edges treated so that vibration shall be as little as possible. We ourselves must confess that Big Ben has never struck us in the light of being "the worst bell in the world." On the contrary, its deep-toned boom is wholly pleasing, and to us, as to other Londoners, is an integral part of London's charm.

The Motor Show, Olympia. The huge sales of cars and their accessories, estimated at some fifty millions of pounds, that have been effected at the Motor Show at Olympia, besides giving an enormous fillip to the motor industry, are well calculated to restore confidence in the merit of British goods and in the soundness of the nation's financial status. While we understand that this huge figure is a "paper" one and that it is uncertain that all those who ordered cars will eventually take delivery, the true value of the exhibition cannot yet be computed. The modern man goes about business rather more deliberately than he did, and attends the Show not necessarily to buy a car, but rather to weigh up the merits of one car against another. Those that make an appeal to him he will inspect in the quiet of their own showrooms, and there will make his final choice.



Model of Bronze Sculpture Group (Castor and Pollux) on the South African War Memorial, Delville Wood.

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(*See also p.* 729.)

GENERAL NEWS

Professional Announcements.

Mr. J. Fothergill, A.M.I.C.E., of Oswaldtwistle, has been appointed engineer and surveyor to the Cheadle and Gatley Urban District Council, in place of Mr. P. H. Molyneux, resigned.

Mr. E. Emrys Edmunds has commenced practice at "Ilston House," 94, Mansel-terrace, Swansea, and will be glad to receive catalogues, &c.

Surveyor's Estate.

Mr. W. J. Villar, J.P., of Tauntfield House, Taunton, Somerset, auctioneer and surveyor, left £71,228.

Obituary.

We regret to record the death, which occurred at "Crossley," Redhill, on October 26th, of Mr. Albert Waring Venner, L.R.I.B.A., a member of the Surrey Archæological Society. He had an extensive practice in former years.

New Armorial Window at Oxford.

An armorial window to John Tradescant has been presented to Oxford University by the Garden Clubs of Virginia, U.S.A. The window is to embellish the stairway in the old Ashmolean Building.

Scottish Architectural Examination.

At a recent meeting of the Council of the Incorporation of Architects in Scotland, it was decided to accept the offer of the R.I.B.A. to hold their final examination for Scottish candidates in Scotland at Edinburgh.

A Re-survey of City Sewers.

A complete re-survey of the 60 odd miles of sewers in the City of London is about to be made by the Corporation's engineers. The sewers date back to ancient days, a few of those still in use, it is stated, going back to the time of Elizabeth. The cost is estimated at £4,500, and the work will occupy at least three years. Improvements in the sewers will follow the working out of the survey.

Crypt Discovered in City Church.

Under the south-east corner of the church of All Hallows, Barking by the Tower, a small but well-preserved fourteenth-century crypt has been found. The discovery was made accidentally, and excavations have been carried out by the Rev. P. B. Clayton and others. For the next eight days the crypt will be open to the public, after which period it will be closed again in order that further work may be carried out. The crypt is 26 ft. long and 12 ft. wide. Its vaulting is simple and is carried on six arches of fourteenth-century character.

Australasian War Memorial at Port Said.

The Federal Government of Australia has concluded an agreement with Sir Bertram Mackennal for the completion, according to the original design, of the sculptural group for the Port Said memorial to soldiers of the Australian and New Zealand forces who died in Egypt, Syria, or Palestine, which was begun by the late Mr. C. Web Gilbert, and was uncompleted at the time of his death in October, 1925. The site of the proposed memorial is in the public gardens near the entrance to the Suez Canal, and preliminary work on the foundations for the pedestal are in progress. Stone for the pedestal will be shipped from Australia.

Architects' Names on Builders' Boards.

Answering Councillor A. Mitchell at a recent meeting of the Godalming Town Council, Mr. G. B. Hartfree (surveyor), explaining why his name appeared as architect on the board of the builder engaged in erecting the Station-road houses at Farncombe, said the builder asked him if there was any objection to his putting up a board, and he (the surveyor) replied, "No. You can say, if you like, I prepared the plans." His object was that it had appeared in the Press that architects should be compelled to put their names on their own work so that there would be fewer eyesores. The Council were not paying for the board, neither was he.

Ultra-Violet Rays and Health.

Members of the New Health Society inspected on Monday last, at the Zoological Gardens, Regent's Park, the results that have been effected through the glazing of the monkey and lion houses with vita-glass—a new substance discovered by Professor F. E. Lamplough, which allows the ultra-violet rays of the sun to pass through. These rays are unable to pass through ordinary glass, and as ultra-violet rays in moderation are essential to the health of the body, the effect of the new glass on the Zoo animals has been very marked. The orang-outang—who before the new glazing was bald all over—is now covered with bright chestnut hair. In the lion house the coats of the animals have undergone a very marked improvement since the fitting of the vita-glass roof, and they have so benefited in health that they can now spend many more hours in the open air without ill-effect. The new glass has been fitted to a score of educational and hospital buildings, and an interesting test recently was carried out at the Council Schools, at Smethwick, between two classes of children, each class consisting of about twenty children. One class worked in a room fitted with ordinary glass, the other being in a room glazed with vita-glass. At the end of six months the children in the former class had gained the normal increase in height and weight, but the "vita-glass class" had gained no less than 60 per cent. over and above the increases gained by the other class. Mr. W. L. Chance, in a brief address, said that the cost of fitting vita-glass to the average suburban house would be about £10 over and above the usual glazing costs.

COULSDON AND PURLEY PUBLIC BUILDINGS COMPETITION

THE result of this competition affords another warning to competitors to note the salient points of moment and the problem before them. In the result it would appear that the winners scored strongly by their method of lay-out and the provision for building a certain part of the work (to be undertaken first) as a complete unit. Their plan is laid out with some dignity and breadth. It has ample entrance space and easy access to the various offices. It leaves a ready way of providing subsequent additions. There are other designs which in combined excellence of plan and elevation might have taken a better position but for their lack of meeting most efficiently the exact problem laid before them in the conditions.

The limit of cost would appear rather severe for the winning design, and yet one could hardly doubt the wisdom of preferring it to the third premiated design, which seems to have been evolved by almost undue apprehension of the cost. Last week we published the plans of the three premiated designs, so need not here refer to them further.

It is always with much sympathy for the unplaced that we note the results of such competitions. There were, however, only 13 competitors in this one. An admirable design both as regards its nice elevational treatment and compact plan was that by Messrs. J. S. Gibson & W. A. S. Gordon. This would have made an excellent group of buildings. Messrs. Elwes & Jupp had a good elevational treatment, but their plan obviously put them out of court.

We much liked the general treatment of Mr. A. M. Mackenzie's design of a nice Tudor character, and in many respects a good plan. In his case he makes the fire-station a low, flat adjunct to the main building.

The design by Messrs. Rowland & Sibley hardly calls for any special note, for the agreeable elevations were not well supported in plan.

The design by Messrs R. Knott & E. S. Collins was probably the best of all from a purely architectural point of view. The plans were able and the main elevation a distinctive piece of Renaissance which would have had a dignified effect.

Mr. E. Hayman, in eight sheets of drawings, produced a well laid-out (but we should say expensive) scheme with the Council Chamber on the ground floor.

Messrs. Allen & Potter sent in a good and compactly designed plan, not very well lighted on the ground-floor vestibule, but with excellent elevations.

Messrs. Cross sent two schemes, but neither of the plans appealed as much to us as most of the others. The elevations were well treated.

Messrs. P. H. Adams & A. K. Gardner sent a good set of drawings, showing nice elevational treatment. Sympathy for the drawing office clerks was hardly expressed.

Mr. H. T. B. Barnard was strongest in his elevational treatment, which was good.

The drawings by Messrs. Adams & Gardner, A. M. Mackenzie, Messrs. Allen & Potter, and Messrs. Knott & Collins all reached a higher level of excellence than we are accustomed to find in limited competitions.

COMPETITION NEWS

"Daily Mail" Ideal Houses Competition.

We are informed that Mr. Louis de Soissons, F.R.I.B.A., and Mr. C. W. Miskin, of St. Albans, have been appointed to act with Mr. E. Guy Dawber, P.R.I.B.A., in assessing this competition.

Rawmarsh and Parkgate War Memorial.

Architects are invited to submit designs for this memorial, the cost of which, inclusive of fees, is not to exceed £2,000. The author of the winning design will be invited to act as architect for the erection of the memorial. Prizes of ten and five guineas will be awarded to the authors of the designs placed second and third respectively. Full particulars may be obtained on application to Mr. J. A. Tonge, L.R.I.B.A., Surveyor's Office, Parkgate, Yorkshire, W.R.

Modern Furniture Competition.

The Furnishing Trades' Organiser is offering prizes for open competition as follows: Section A, complete furniture for a double bedroom; Section B, complete furniture for a drawing-room; Section C, complete furniture for a sitting hall; and Section D, complete furniture for a dining-room.

The Committee of Assessors will select the most distinctive and practical designs submitted, and award premiums of twenty-five guineas each to a maximum of two hundred guineas for eight designs so selected. These designs may be taken from any, or all, of the sections. Two awards will not necessarily go to each section, nor will eight prizes be given if the standard of design does not justify it. Furniture from any or all of the premiated designs in the first adjudication will be made, and when this is complete, the assessors will award in order of merit the prizes below to the designers of furniture which, in their opinion, is the best in actuality. First prize, 150 guineas; second prize, 100 guineas; third prize, 50 guineas.

All the furniture made and all designs submitted for competition will be shown at an exhibition. Academic copies of period furniture are not eligible. Although mere adaptations and reproductions of period work are not desired, freakish and fantastic novelty is not the aim of the competition.

Designs to be addressed, The Editor, *The Furnishing Trades' Organiser*, Regent House, Kingsway, London, W.C. 2, and to reach the office by January 15, 1927. Full particulars of the competition may be obtained on application to the same address.

The Committee of Honorary Assessors is as follows: Countess of Oxford and Asquith; Lady Islington; Sir Frank Baines, F.R.I.B.A.; H. Clifford Smith, F.S.A.; F. V. Burridge, A.R.C.A.; P. Morley Horder, F.S.A.; Philip Tilden; Percy A. Wells; Holbrook Jackson; and Capt. Edward W. Gregory.

Note.—There are no changes in the list of Competitions Open as given in our last issue; this week, therefore, the table is withheld.

Design for the Mosaic of King Edward III, St. Stephen's Hall, Westminster.

BY MR. R. ANNING BELL, R.A.

PRESIDENTIAL ADDRESS.

ON Monday evening MR. E. GUY DAWBER, P.R.I.B.A., delivered his opening address to the R.I.B.A. The past year, he said, had been marked by a great deal of quiet but effective work for the advancement of architecture. They had not been troubled by matters of professional politics, and were now united in a policy which had the support of all the best elements in the profession and commanded the loyal adhesion of all the Allied Societies. The Special (Registration) Committee had completed the first stage of its work. The Bill had been drafted and was unanimously approved by the Council in July last. The next step would be for the general body of members and the Allied Societies to consider and approve this draft Bill so that it could then be introduced into Parliament, and it was hoped this might be done during the present session. To get their Bill on the Statute Book they would need the united support of all members of the profession, especially those outside London, who suffered more than any others from the state of affairs which he believed would be remedied under a Registration Act. They had had their attention called to efforts being made by certain gentlemen, who seemed to be profoundly concerned with the interests of the profession, to create new Societies for the protection of unattached architects. These efforts were unnecessary, for there had never been any question of danger to the interests of any bona-fide architects. No Registration Bill which in any way threatened those interests could possibly become law, and the Bill would provide fully and fairly for their protection. He would like to counsel the unattached architect not to complicate the situation and possibly endanger the very interests he had at heart by joining these entirely superfluous organisations.

Having referred to the success with which competitions were carried through in accordance with the R.I.B.A. regulations, the President continued: The Royal Institute of British Architects during the past year had done its utmost to make its influence felt in many public matters. It organised and led the campaign for the comprehensive treatment of the London bridges, culminating in the appointment of the Royal Commission under the chairmanship of Lord Lee of Fareham which is dealing with the whole question. It had urged the necessity of a great planning scheme for Central and Greater London. It had helped and advised the London County Council in the matter of the revision of the London Building Acts, and it had lost no opportunity of impressing upon the Government and Municipal Authorities the importance of employing properly qualified and able architects in connection with housing schemes.

During the last few months (continued the President) the long chapter in the history of the Foundling Hospital had been closed: one by one the ancient foundations of London were being driven out, which generally meant the making of more money by the destruction of amenities that no money could replace. The Bloomsbury district was one of the quarters of London where town planning had been carried out in a really comprehensive manner by a former generation of landowners. It was designed as a residential quarter, with squares and delightful houses, and though many of these were now used for varying purposes, connected with education and the learned and professional societies, and its residential character was to a certain extent lost, very great consideration should be given before the site of the Foundling Hospital was handed over for other and purely commercial purposes, to the detriment of the neighbourhood.

The falling in of leases had necessitated the rebuilding of large areas, some of it extremely good, but some showing evidences of haste and ill-considered design. It was the fashion for the public to criticise severely much of this modern work, to compare it to its disadvantage with what had gone before and to condemn without the least thought or discrimination the efforts of modern architects, but he maintained that much of what we were doing would hold its own with the architecture of the past and showed an understanding and appreciation of the difficulties and problems of to-day, difficulties that were non-existent when these old buildings they so much admire were erected. It was the Englishman's habit of self-depreciation that made him incapable of recognising the good work that was being done in his own country, and one could only regret the spirit of damping criticism that prevailed. Kindly appreciation and encouragement would be much better.

The peculiar fitness of women to be architects and to design the houses in which they lived was a never-ending topic with the Press; the many articles by disillusioned ladies made dismal reading, but more pathetic still was the belief that all the defects they found in their houses were due to the ignorant and incompetent male architect. However, if their feminine critics pinned their faith to their own sex, they would soon have the opportunity of proof, for of late years scores of women had passed through the architectural schools, some of whom had obtained high honours in the examinations and had become full members of the R.I.B.A., and it would be interesting to see whether they would be any more successful in circumventing the economic difficulties of house building than their much-maligned male colleagues.

Architecture was now almost confined to public and commercial buildings in our great towns and cities, and if of a domestic nature, it took the form of great blocks of flats, which were replacing the individual houses of last century. It followed that bold and well-thought-out schemes of planning should not only be encouraged but should be an imperative necessity in the social organisation of every large city. Yet what did we find? Houses demolished and replaced by flats, erected by "construction syndicates," many lacking all sense of design or dignity, built on our main thoroughfares, and—they could only assume—approved by our local authorities. Even in small matters we missed our opportunities. Oxford Circus with Nash's old buildings around it was a dignified and well-proportioned entity—the height of the houses balanced the size of the Circus. In rebuilding, exactly the old lines had been followed, but the new buildings were twice the height of the old and threw the whole Circus out of scale, thus affecting the entire charm and proportion of the design. How easy it would have been to increase the diameter some 50 or 60 ft., making the Circus proportionate to the new buildings and so getting a really fine scheme; instead, we had another chance missed, another eyesore for all time.

In the rearrangement of building sites, we should no longer allow the intermingling of factories and warehouses with residential areas—where, in consequence, whole districts deteriorated and gradually became slums. Many parts of London were hopeless muddles of incompatible buildings, æsthetically and financially unsound, and it was only by most careful town planning and regional zoning that these incongruities could gradually be remedied. Under the system of 99 years' leases, large areas had already fallen in or would terminate very soon, and throughout London estates were being broken up and sold and thereby passed from the hands of the owner, who possibly had some control, into the hands of many where all general control ceased. While there was serious danger, therefore, that the advantages of good development in the past, such as the provision of squares and open spaces, might be lost, there should be an opportunity to-day for large schemes of rebuilding, planned on the best modern lines, so that, when the leases lapsed, continuity of policy might be rigidly pursued. Our London municipal authorities should regard this as a task to be systematically followed up over a long period of time, and should do all in their power to discourage the hand-to-mouth method of allowing each man to build for himself without regard to his neighbours or the general amenities of the district. The country was being littered with spots of indifferent architecture bearing little or no relation to its situation or surroundings, for which architects did not altogether escape blame, for architects were responsible for many of these buildings. If we had better-trained architects we should get better buildings. It was therefore difficult to understand why our municipal and local authorities who were responsible for so much building should place it in the hands of officials who, by the nature of their daily work, had neither the time nor the skill for its adequate execution.

The problem of the design of street façades was still unsolved. The present-day fashion, in many parts of London and in our great provincial cities, tended towards flat buildings devoid of all ornament or decoration, or even mouldings But if crowned at the top with a certain amount of decoration, it was generally so high that it was impossible to see it, or it was so out of perspective and foreshortened as to have no meaning or effect. This monolithic type of architecture, with its negation of all ornament, was perhaps a reaction from the overcrowded and over-decorated buildings of the last half-century, but we might expect a change to take place and doubtless another decade would produce another type. What the effect of these monotonous fronts would be in twenty or thirty years' time, when they were darkened with smoke, was unpleasant to contemplate. They would certainly not contribute to the cheerfulness of our streets. He had often wondered why, in a city like London, we had not continued the use of stucco and painted plaster, so prevalent in the eighteenth and nineteenth centuries. In certain types of buildings the decorative effect required could equally well be obtained in these materials as in stone and brick, and for street architecture the appearance of houses brightly painted would give an effect of brightness and cleanliness such as we see in so many Continental cities, and recently in a building in Leicester-square. How pleasant Regent-street used to be with its freshly-painted fronts, and how effective the buildings designed by Nash around Regent's-park were to-day, with their new coats of colour—so different from the drab and dreary vistas of brick and stone in the surrounding neighbourhood.

Turning to the question of the London squares, the President recalled that many of these of late years had almost entirely lost their residential character; the private residences had been converted into professional and business offices, clubs, institutions and the like, whose occupiers rarely made any use of the grounds which they enclosed. Why could not these be handed over to the L.C.C. or the local borough councils for maintenance as additional playgrounds for the benefit of the whole community? Any attempt on the part of the owners to sell the squares for building purposes should not for a moment be allowed. It was, for instance, regrettable that the square opposite the entrance to Euston Station should have been sacrificed for building purposes. Mornington-crescent, which was soon

to be the site of a great factory, was another illustration. Again, apart from the squares, might not a great improvement be made in the appearance of many of our thoroughfares, especially those on the south side of the Thames, if the so-called front gardens were all cleared away and the space thrown into the roadway? At present, divided by walls and railings, they became, in many streets, merely receptacles for dirt and litter, were seldom kept neat and tidy, and gave a sordid and dreary effect to the roads they bordered. If these walls and railings were swept away, and the trees left, with the grass or pathways carried up to the houses, putting railings only around any existing basement areas, what a sense of airiness and spaciousness would result, and how greatly the appearance of the streets would be enhanced! We might here well take a hint from our American friends, who had treated their houses and roads so admirably in this way.

A year ago he pleaded for safeguarding as much as possible the beauty of our English countryside, and suggested the urgency of some action being taken before it was too late. A Council for the Preservation of Rural England, which was foreshadowed in his last address, had just been formed and an organisation provided which would enable the work to be started if the requisite energy and good will were forthcoming. Early in the year the Royal Institute of British Architects called a preliminary meeting of various societies interested—amongst others the Town-Planning Institute, County Councils Association, Rural District Councils Association, National Federation of Women's Institutes, the National Trust, Scapa Society, Commons and Footpaths Preservation Society, Urban District Councils Association, Country Gentlemen's Association, and many others. The result had been most encouraging. Since then other meetings had been held, a scheme had been drawn up, and very shortly they proposed to hold a public meeting at which the whole matter would be explained and an appeal be made for public support. The objects of the Council for the Preservation of Rural England were simple—to organise concerted action to secure the protection of rural scenery and the beauty of country towns and villages from disfigurement or injury; to assist existing organisations to secure the preservation of buildings and places of historic interest or of natural beauty; to act as a centre through its constituent members for furnishing or procuring advice and information upon any matters affecting the protection of such amenities, and to arouse and educate public opinion in order to ensure the promotion of the objects of the Council.

When the Town-Planning Act of 1909 was passed they all hoped that England would become more attractive, as power was given to local authorities to control the character of new buildings and to reject what was ugly, but though the promoters of the Bill had in mind the appropriate appearance of the new buildings, hundreds of town-planning schemes absolutely ignored the spirit of the Act and, while conforming to its legal restrictions, carried it out in a manner which in many cases had meant the sacrifice of the very beauty it was hoped to obtain. With new roads being made in all directions and houses being built along these roads, great stretches of English countryside were being converted into suburban villages and its rural character was becoming lost. The time had arrived, if we were to have any beautiful country left within reasonable access of our towns, to take drastic action, which could only be done by a more intelligent application of our Town-Planning Acts. These could never be successfully administered without the help of some proper organisation, such as a panel of architects, and local societies, comprising men of taste who were interested in the true welfare of their neighbourhood, to which all questions affecting the general appearance of the town, village or buildings should be referred. It was in such cases that the Council for the Preservation of Rural England could be of the greatest service.

Referring to the great number of small and frequently ugly houses that are built, the President said the man who wished to build a small house felt he could not afford to employ an architect, so he went to the local builder who combined architect and contractor in one, and whose notions of design and planning were limited: he repeated himself in house after house, and generally added to his bill an architect's commission. To meet the situation he (the speaker) had long thought that a series of small house plans might be designed by a group of architects (after the American plan), suitable for various localities and districts throughout the country and sold for a trifling sum to those who wished to build. The series might comprise a variety of designs, planned to meet the needs of the prospective householder with limited purse, and the plans should be accompanied by a recommendation that a local architect should be employed to supervise the construction for a fee to be agreed. Some system of this kind would give a traditional form of building to the small house and would go some way to prevent the vagaries in design and material which were now so prevalent. In connection with this idea, what an opportunity would be given to our multiple shops, International Stores and such like firms, who were building in so many of our country towns! By employing architects of outstanding ability, in sympathy with local conditions, they might erect buildings that would not only be a credit to the towns, but would also redound to the credit of the particular firms.

All those who loved the country must have rejoiced when Mr. Neville Chamberlain recently introduced his Bill for Reconditioning Rural Cottages. Many of these old cottages were delightful examples of the traditional work of their district. Under the Act, and with the grant that would be made, they only need to be repaired and added to, to become excellent habitations. The county councils would be the normal channels for these grants, with powers to delegate to smaller committees to work out a system of preservation combined with improvement. But this, too, had its dangers. A drastic use of the Act might start a campaign for providing these old cottages with bay windows, plate glass sashes, red ridges and blue slate roofs, with, in effect, all the horrors of the modern cottage. If the grant was handed over to local authorities to administer without guidance the remedy might be worse than the disease, judging by the efforts in modern cottage building under their control.

England to-day was taking a leading part in the formation of fine roads, and our great arterial and other widened roads were essentially necessary for communication between centres of trade and for the conveyance of goods. But these should not necessitate the pulling down of our old bridges, clearing away our ancient houses and widening our picturesque village streets merely to enable the passing motorist to rush through more rapidly. Motor traffic, no doubt, was a necessity as well as a convenience of modern times; but there were other people besides motorists, and the tendency to sacrifice everyone else to the interests of a comparatively well-to-do class, to allow these people to overrun the beautiful byways of England as they liked and to turn its highways into racing tracks was being carried much too far. Garage sheds had sprung up everywhere, and the petrol companies who made a virtue of the removal of their roadside signs had given us instead far more hideous red, blue and yellow pumps! We wanted visitors to see our beautiful towns and villages, and yet we greeted them at their approach with hideous hoardings, garages, and pumps. Had not the authorities enough foresight to see that, by allowing these defacements, by allowing manufacturers and vendors of cars, bicycles, and petrol to vulgarise and spoil their surroundings, they were killing the very bird that laid the golden eggs?

The next generation, concluded the President, would reap the benefit of the educational work of their professional organisation, and of the creation of a wider appreciation of their art; but if we did not take strong and immediate steps to stay the vast amount of inappropriate and ill-considered building work now going on, without any proper guidance or control, it would be too late and the heritage of beauty passed on to us by our forefathers would be lost.

DISCUSSION.

Mr. Neville Chamberlain, Minister of Health, moving a vote of thanks to Mr. Dawber for his address, said that to him (the speaker) it was rather depressing. The President showed that London was degraded and vulgarised, while the great provincial towns were like splashes of ink on a piece of blotting-paper and the countryside was defaced by red, blue and yellow petrol pumps. But no doubt the President had realised, like the owners of those pumps, that if one were to impress the public, one had to lay on the paint with a broad brush and use strong colours. He agreed, however, that the time was ripe for some such efforts as the President suggested. The response to the proposal to form the Council for the Preservation of Rural England surely betokened a widespread recognition of the need for concerted action to preserve the character of old England. He would be a whole-hearted supporter of any effort made to that end. As to what form such advisory bodies might take, the speaker mentioned the example of the Birmingham Civic Society, on which architects were largely represented, and which was very frequently consulted by the Birmingham Corporation on such matters as the design of buildings and open spaces, the treatment of the crossings of great thoroughfares, &c. With regard to the new Bill relating to the Housing of Rural Workers, one of the objects of which was the preservation of old cottages, he had to say that if this meant thatched roofs being replaced by galvanised iron ones and the addition of bay windows to Tudor houses, it would be a severe trial and disappointment to him. If architects would put their services at the disposal of county councils, he felt that no barbarism of the sort suggested would be allowed to take place. No question of a fee, however small, should enter into the services thus offered to local authorities. Architects would not suffer in the long run. The best way to educate the public to an appreciation of the work of architects was first of all to induce an appreciation of architecture.

Sir Leslie Scott, K.C., seconding the motion, said that some kind of supervision over what was built was needed as much in the town as in the countryside. The formation of the Council for the Preservation of Rural England was a start of immense promise. Such a body could be of inestimable service in helping local authorities and in guiding public taste. In his opinion, however, it was essential to strengthen the law. Voluntary effort was not sufficient to overtake the epidemic of bad building that was spreading over the country. All proposals of town planning, site planning, and the elevations of all buildings should be subject to some measure of æsthetic control. He believed it possible to get through Parliament a non-controversial measure with the consent of all parties of the House.

N.W. Surrey Town Planning.

The first meeting of the newly-constituted North-West Surrey Joint Town-Planning Committee was held at the Woking Council Chamber recently, when Mr. G. L. Pepler (of the Ministry of Health) presided. Mr. Pepler stated that five out of seven authorities had agreed to join the combined committee, and the proportion of authorities who agreed to join after the first invitation was, in this case, well up to the average. The report of a sub-committee of surveyors is to be presented at an interim meeting to be held on November 25, when preparations for the ordinary quarterly meeting will be made.

CORRESPONDENCE

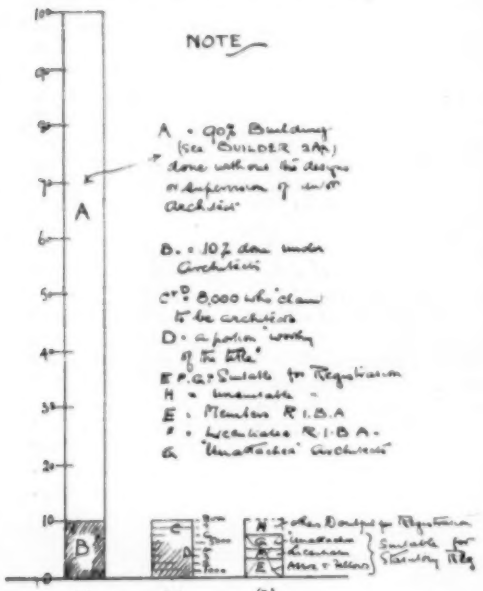
[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

The "Statutory" Registration of Architects.

SIR,—Mr. McArthur Butler replies to my letter, but makes no attempt to answer my enquiry. He describes it as "shop-soiled." Can he wonder when it has been handed out dozens of times and no one will relieve me of it by giving me a reply? I am still awaiting information. I suppose the promoters have some idea of what they want to accomplish and of the expected benefits to follow. What are they?

That thousands of architects have joined the R.I.B.A. and other societies in order to enjoy the advantages (and *inter alia*, "the professional discipline and control") which those societies offer, has no bearing on the subject of my query which refers only to "Statutory" Registration. I strongly suspect that many architects are pursuing a phantom and will shortly find themselves in the marsh; but my fears and objections apply only to "Statutory" Registration, and not to what I have described as a "hall-mark" of artistic and professional ability.

My recollection (I have no copy for reference) of the last draft Bill is (1) that it attempted to control, not what a man did, but what he called



himself. His plan-making and supervision were all right provided he did not call himself "architect." (2) That there was an attempt to interfere with a lawful contract between the building owner and the building erector, where someone "unregistered" had prepared the plans. (3) That there was some regulation to prevent a "Registered Architect" working with or for an unregistered man. These three points are all capable of evasion at every turn and therefore unworkable.

As the building owner, his neighbours and staff are already protected by almost endless laws and regulations and public inspector supervision, there is no need to attempt to compel him to employ a "Registered Architect" at all. It is admittedly advisable that he should, but workable compulsion by law is impossible. It follows that every "Building Operations Director" who cannot get registered as "Architect" will carry on unregistered.

I attach a diagram mainly based on figures given on page 541 of *The Builder* of April 2, 1926.

Column 1 shows (*a*) "90 per cent. of modern buildings executed without any design by or supervision of an architect at all"; (*b*) the 10 per cent. for which architects are responsible.

Column 2 shows the "8,000 who definitely lay claim to the title of architect" set opposite (*b*); (*d*) is the "small proportion who can claim a reasonably good qualification for supplying a client with good artistic design and efficient business guidance"; (*c*) the others.

Column 3 divides the 8,000 into—

(*e*) Members R.I.B.A.
(*f*) Licentiates R.I.B.A.
(*g*) Unattached architects.
(*h*) Doubtful if suitable for registration (compare (*c*) above).

As I understand the Registration scheme, it affects the few (*g*) only. I am one of these and therefore interested in the proposals. Groups (*e*) and (*f*) are labelled already; it is merely a transfer of their names to a new list. (*h*) May be added by way of compliment rather than dispute their claim, but if rejected they merely join the great majority who carry out the building (*a*) and such transfers consequently diminish building (*b*), column 1. If that fairly represents the Institute case, it appears to me to be useless.

We must not make the mistake of thinking of building (*a*) to the value of hundreds of millions goes up without plans and supervision; that would be impossible. It is only that those under whose guidance it proceeds do not style themselves architects, but if any advantage arose from Registration they would probably make claims to come on the register.

Personally, I rather mistrust the figures I have quoted, and I feel that when a man of scholarly attainments, like Sir Reginald Blomfield, looks around and sees many ill-designed buildings, he assumes that they are not by architects (and in the best sense that is so), and he does not realise that many are by members of the Institute of which, not long ago, he was President.

HORACE R. APPELBEE.

Registration.

SIR,—As one solely responsible for the foundation of newer organisations to protect isolated practitioners in any system of legislative registration, I can tell Mr. Butler why it is unnecessary to ask the question, "Why are all architects not registered?" The reason is, that we all know the R.I.B.A. would reply that the Institute was the only body capable or willing to register. Such is not the case, however, as shown by the large number of old-established practitioners joining the Faculty of Architects and Surveyors; this is also a reply to Mr. Butler's statement that the vast majority of architects of repute in this country are registered as members of the R.I.B.A., or of its Allied Societies. If Mr. Butler will suggest the substituted question, "Does anybody wish to know what the Registration Committee of the R.I.B.A. is doing, or how it is drafting the proposed Registration Bill?" we shall promptly say, "Yes; would you mind letting us have a copy of the Bill, so that we can see what the Registration Committee is up to?"

A. E. SOCKETT,
Barrister-at-Law, Senior Lecturer to the Faculty of Architects and Surveyors.

[Our correspondent will see from the report of the R.I.B.A. Presidential Address, given in this issue, that the Registration Committee has drafted a Bill which has been approved unanimously by the Council of the Institute, and which is to be considered by the general body of members and the Allied Societies with a view to its introduction into Parliament during, it is hoped, the present session.—ED.]

Architects' Defence Union.

SIR,—As Chairman of the R.I.B.A. Practice Standing Committee, which is responsible for initiating the Architects' Defence Union, I shall be obliged if you will afford me the hospitality of your columns in order to make known, as widely as possible, the fact that the proposal was unanimously approved at a meeting of architects and surveyors held at the R.I.B.A. on the 18th of October last; and that at the same meeting the Acting Committee was authorised to proceed with the task of carrying it into effect.

As a result of these far-reaching decisions, the architects of the country have at last brought themselves into line with the members of the medical and other professions, by determining—in like manner—to protect themselves against the heavy risks and onerous liabilities which are daily encountered in the exercise of their professional duties.

The very real security and substantial benefits under the policies of the Architects' Defence Union—for an annual subscription of £3 3s.—are extended to all architects and surveyors practising in the United Kingdom, and are by no means confined to those belonging to particular Societies. Seeing that the combined membership of these two professions numbers close on fourteen thousand, the financial stability of the Union would appear to be assured. I would add that full particulars of the scheme will be sent to any practising architect or surveyor on application to the Secretary, Architects' Defence Union, No. 9, Conduit-street, W.1.

J. DOUGLAS SCOTT.

THE NEW MOSAIC IN ST. STEPHEN'S HALL

THE EARL OF CRAWFORD AND BALCARRES, K.T., on October 28, unveiled the panel in St. Stephen's Hall, which completes the scheme of mosaic decoration in that portion of the Palace of Westminster. The panel is entitled "Edward III commands the rebuilding of St. Stephen's Chapel," and it is placed over the west doorway. It has been prepared from the design of Mr. R. Anning Bell, R.A., who was responsible for the panel of St. Stephen at the east end of the hall, and also for those of St. Patrick and St. Andrew in the Central Lobby. Professor Bell's design depicts Edward III handing the approved model of the chapel to the master mason, Thomas of Canterbury, while on his other side stand two workmen. The features of the master mason in the mosaic are those of Mr. Thomas Wilson, Deputy Keeper of Westminster Hall and Clerk of the Works, who has done much to enhance the beauty of the House.

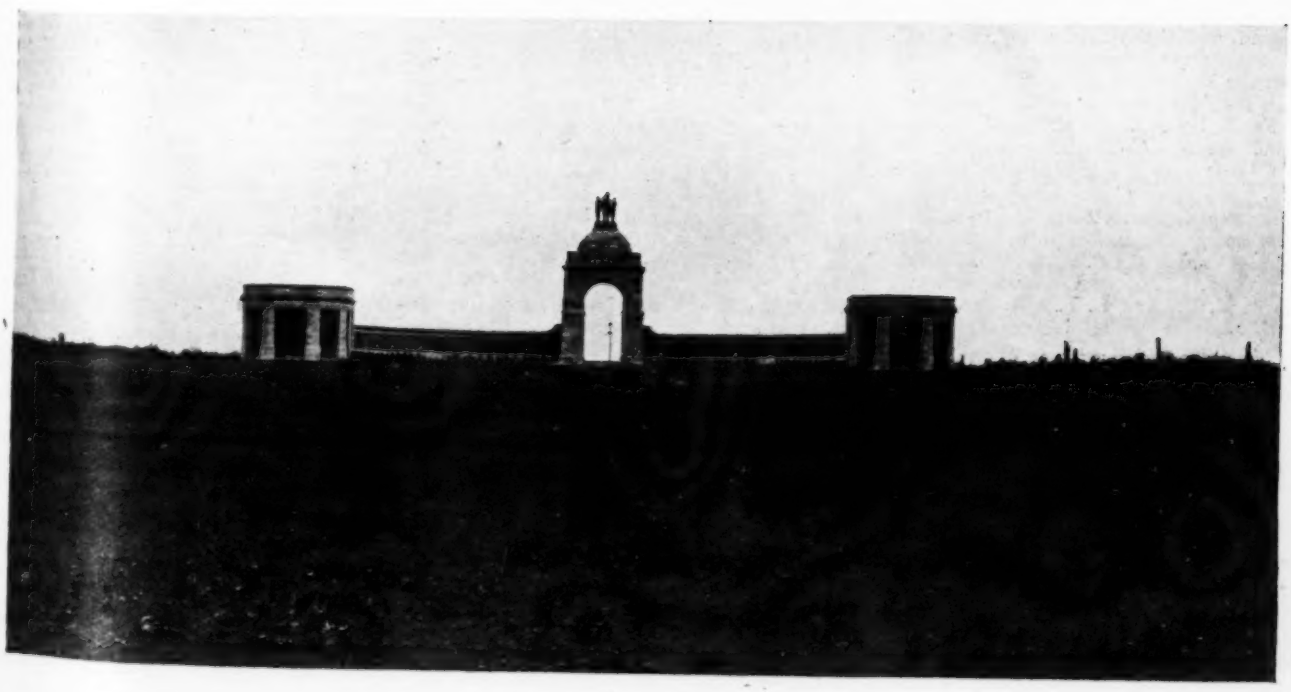
The Earl of Crawford and Balcarres, after unveiling the work, said that the Chapel of St. Stephen—an incident in whose erection formed the subject of this panel—was begun by Edward I, carried on by Edward II, in whose reign a disastrous fire occurred, and restored finally by Edward III. The Chapel, after several misadventures, was burnt down in Queen Victoria's reign, and they were now standing in the new St. Stephen's Hall and in the passageway between the most historic room in England, Westminster Hall, and the most historic Parliament House in the world. They were indebted for this new mosaic to the Speaker, who had concerned himself with the embellishing of the building, not only from æsthetic considerations but also with the intention of giving opportunity to British craftsmen for the reviving of the old British arts. He hazarded the opinion that this new mosaic was the best of the four and that its simplicity of line, austerity of treatment and generous glow of colour reflected the care expended upon it by Professor Anning Bell, the designer, and Miss Gertrude Martin, who executed the work.

Sir Frank Dicksee, P.R.A., echoed Lord Crawford's words and said that to visit the restorations of the English Primitive Wall Paintings, by Professor Tristram, would help to show how well the new panel was in accordance with the atmosphere created by the craftsmen of old.

Professor Anning Bell, R.A., in responding, said he could do no more than thank those who had given him the opportunity of designing these mosaics, and paid a high tribute to the way in which Miss Gertrude Martin and her assistants had carried out their part.

In addition to the new panel there are on view reconstructions of the Mediæval wall paintings, once in the ancient Palace of Westminster, by Professor E. W. Tristram, of the Royal College of Art.

Central Feature.



A General View.

The South African War Memorial, Delville Wood.

Sir Herbert Baker, A.R.A., Architect. Mr. Alfred Turner, A.R.A., Sculptor.

SOCIETIES AND INSTITUTIONS

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS.

Fifth Annual Convention.

The fifth annual Convention of Delegates of this Association was held at Kettering on October 23 and 24, under the presidency of Mr. E. Fiander Etchells. Delegates representing the branches of the Association were present from every part of the country.

In his address to the delegates, the President said that during the coming year the Association must continue to do all in its power to improve its status, and members, councils, and committees must adapt themselves to changing conditions. They must face their tasks as brothers in one brotherhood. They knew that one architect or one engineer could not do everything. It was, therefore, desirable that the Association should do what it could to have recognised the chief engineer or chief architect, and each man, having served his pupilage, should become an architect, standing as a man in his own right and own name, and architects' assistants become architects by virtue of their training. He hoped that the Association would be able to get the architects employed by the big organisations recognised as architects. Their immediate task must be to strengthen and consolidate the status of every grade and every position.

The Convention would be asked to deal with the alarming growth of casual employment amongst the salaried sections of the architectural profession. In many offices, when assistant architects had become interchangeable parts in a machine, they came and went very quickly. Skeleton staffs were employed regularly and when a large contract was obtained ready trained men were sought for the period of the work. Thus we had casual employment and scrappy workmanship. A stable civilisation depended on the curing of this disease.

Delegates would be asked to consider another question of vital importance, namely, the supervision of office premises. The members had long known of the Factories and Workshops Acts and Regulations, and their duties had brought them face to face with the benefits which such legislation had brought. It was their hope that those persons whose lives were spent with their chests contracted bending over desks and drawing boards in underground and dimly-lighted offices would receive the same consideration as was extended to the factory workers. With the help of the Sickness and Unemployment Benefit Fund, Benevolent Fund, and Scholarship Fund the Association was seeking to raise up those who fell, to help those who stumbled.

The Convention then confirmed the election of the following officers and Council for 1926 and 1927:—President, E. Fiander Etchells, (Hon.) A. R. I. B. A., A. M. Inst. C. E., A. M. Inst. M. E., P. P. Inst. Struct. E., F.Phys.S., etc. Vice-Presidents: A. Cunes, L.R.I.B.A. (Devon); T. H. Patching (Lancashire); H. R. Surridge (Leicester and Northants); J. G. Marr, A.R.I.B.A. (Scotland). Trustees: J. W. Dennington, L.R.I.B.A.; C. Pickford, L.R.I.B.A.; R. G. Strachan, F.S.I. General Treasurer: C. G. Wright, M.R.San.I. Chairman of Council: Major Arthur S. Hinckley. Vice-Chairman of Council: John Batty, A.R.I.B.A. Members of Council: P. W. Dawnay, P.A.S.I.; J. W. Denington, L.R.I.B.A.; J. W. M. Dudding; R. G. Forbes, A.R.I.B.A.; J. A. Gould; C. H. Holden; A. M. Laurie; E. G. Lynde; C. McLachlan, A.R.I.B.A.; A. Seymour Reeves, L.R.I.B.A.; S. Sanders, P.A.S.I.

The annual report of the Council of the Association was adopted.

Under the sweeping changes which the Convention made in the administration of the Association is one which will increase the size of the Executive Council to permit direct representation thereon of provincial members. The delegates were concerned with the lack of regulations and adequate supervision of office premises, and have addressed the following resolution to the Government:—

"That this National Convention of Delegates representing the Association of Architects, Surveyors and Technical Assistants, views with disquietude the absence of any regulations for office premises, in so far as they concern cubic space per person, underground offices, ventilation, sanitation, cleanliness, and hours of juvenile employees, and would strongly urge the Government to initiate such legislation as would tend to improve the low standard prevalent in many industrial centres."

Before the end of the proceedings, a hearty vote of thanks was accorded the Committee, members and friends of the Leicester and Northamptonshire Branch for the hospitality and entertainment provided.

ILLUMINATING ENGINEERING SOCIETY.

At the opening meeting of the Illuminating Engineering Society, held at the E.L.M.A. Lighting Service Bureau, Savoy-street, Strand, W.C., on Tuesday evening of last week, the report was presented of the Committee on Progress in Electric Lamps and Lighting Appliances—Mr. S. H. Callow (Chairman), Mr. C. W. Sully, Mr. J. W. Elliott (Secretary), and Mr. J. Y. Fletcher. Under various headings, general progress is recorded. We take the following extracts from the report:—

Decorative and Display Lighting.—Among external lighting may be mentioned the growing increase in the number of buildings flood-lighted, generally with white light. The first such installation appeared in this country not more than four years ago. To-day in London alone most of the large stores and similar public buildings are flood-lighted and every provincial town of any size has its examples. The actual fittings and lamps used have undergone little change, the apparatus designed some two or three years ago proving entirely adequate, but the skill and artistry displayed in the use of these fittings shows considerable advance.

Internal Decorative Lighting.—Here the present-day facilities for obtaining and controlling coloured light are being taken advantage of. The installation of banks of coloured lights controlled by dimmers to illuminate the ceilings of theatres and cinema palaces has now become a recognised feature in all new buildings of this type. Waves of contrasting and blending colours are sent over the whole area of the ceiling or over selected portions of it. The full possibilities of this class of work have not yet been reached. It brings into play the best abilities of architects, illuminating engineers and artists.

School Lighting.—Here, as in other fields, the introduction of gas-filled lamps with diffusing bulbs has given the illuminating engineer his cue. To mention one instance—the Sheffield Educational Authority have re-illuminated no fewer than five of their schools, putting in complete and up-to-date installations. Educational authorities in Glasgow, Lancashire, and in London, are also studying the best way to light their schools.

Daylight Lamps.—These lamps, as produced to-day, are designed to filter out a definite proportion of the red and yellow rays emitted from the filament of a gas-filled lamp, and, with this standardised type of lighting, are found of use to assist in rendering the appreciation of the difference between different colours more simple. Textile and similar mills in the north of England are the chief users, but quite considerable office installations are now carried out entirely with daylight lamps. Basement lighting of shops has become an entirely different matter once the application of day-light lamps was really understood. In distinguishing between different shades of the same colour, as in grading wheat, in sorting leather, sorting coal from dirt, grading flour and other such industries, they are found essential.

Church Lighting.—Up to quite recently, church lighting was carried out on the lines that were handed down from the days of candles, that is to say, large electroliers or chandeliers were employed, each with a myriad of small powered lamps, so causing a number of dazzling points of light. To-day, church illumination is done, as it should be, by concealed sources of light which, while providing a soft and sufficient illumination to those using the church, also brings out many beautiful architectural features, which, under the old system of lighting, were never seen at all.

Industrial and Commercial Lighting.—The standard of illumination is still rising, although this is slow. The new Factory Act, if it becomes law, will undoubtedly have a material effect in compelling the owners of factories to give more thought to this important question than they are in the habit of doing usually.

Commercial Lighting.—The lighting of offices and the interior of shops is specially noticeable for the rapid adoption of the dust-proof type of electric fitting. This has all the advantages from the point of view of diffusion and distribution of the light of the bowl fitting which it has replaced, and has the additional advantage—that the illumination does not deteriorate due to the accumulation of dust. The somewhat irregular distribution of light on the ceiling is also avoided.

At the same meeting, in the course of a "Summary of Progress During the Vacation," Mr. Leon Gaster said it was hoped that the introductory report describing the work of the Illumination Research Committee (Department of Scientific and Industrial Research) would be followed in the near future by detailed technical reports on the various researches enumerated in Mr. Walsh's recent paper before the Society. The equipment of the Home Office Industrial Museum in Westminster, which was about to be completed in 1914, but was delayed by the outbreak of war, was now under contemplation. It was understood that in this museum a special feature would be made of the lighting arrangements, and an effort would be made to illustrate typical modern methods of industrial lighting.

With regard to legislation on factory lighting, this prospective development was timely, in view of the fact that the new Factory Bill, now before Parliament, contained provisions requiring sufficient and suitable lighting in factories—a requirement that has not hitherto been actually embodied in the factory legislation of this country, although the Home Office had for a number of years taken a keen and sympathetic interest in industrial lighting. The investigations of the Home Office Departmental Committee on Lighting in Factories and Workshops, and the publicity given to them by the Society, had paved the way for this important step, which would no doubt be willingly accepted both by employers and workers as being in their joint interest.

The View from Richmond Hill.

At a recent meeting of the Middlesex County Council it was stated that the original scheme for the acquisition of the Orleans House Estate, Twickenham, had, owing to the lack of support, to be abandoned. Under an amended scheme, the Riverside Meadow would be secured at once to the public and restrictive covenants placed on the remainder of the property so far as was essential to preserve the view from Richmond Hill at this point. Towards the cost of purchasing the Riverside Meadow, £8,000 has been raised, and £2,000 has yet to be found.

Warning to Architects.

Mr. W. Hilton Nash, hon. treasurer, Architects' Benevolent Society, writes to warn architects against assisting strangers who claim that they belong to the profession but can produce no credentials. He suggests that these persons should be referred to the Architects' Benevolent Society, who will inquire into their claims.

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ILLUSTRATIONS

New Premises in Regent-street.

The exterior of these new premises for Messrs. Austin Reed has been carried out by the architects to the designs supplied by the Crown. The building consists of nine stories, including a sub-basement, all designed to give men dignified surroundings in which to purchase with efficiency all their requirements for personal wear. The hairdressing saloon on the lower ground floor is a feature. The site forms the terminal of the Quadrant and was an awkward wedge shape and thus difficult to deal with symmetrically, and in addition a Crown tenant had to be rehoused in Vigo-street. Features on entering are the open galleries through the floors. The general idea has been to design most floors in a modern scheme and the two upper floors in Tudor style.

The general contractors were Messrs. W. F. Blay, Ltd. The engineers employed for foundations and retaining walls were Sir Douglas Fox & Partners; the architects, Messrs. P. J. Westwood & Emberton, F.&A.R.I.B.A.; and the surveyor, Mr. G. Silvester, F.S.I. Sir Reginald Blomfield, R.A., was the architect for the external elevations.

The following were sub-contractors:—Shopfitters, George Parnall & Co., Ltd.; shopfronts, bronze, Harris & Sheldon; steelwork, Moreland Hayne & Co., Ltd.; stonework, United Stone Firms, Ltd.; constructional floors, Diespeker & Co., Ltd.; marble and terrazzo, Fenning & Co., Ltd.; electric lighting, Tyler & Freeman; heating, Rosser & Russell, Ltd.; lifts, Smith, Major & Stevens; gravity conveyor, W. & C. Pantin, Ltd.; sprinkler system, Automatic Sprinkler Co., Ltd.; vacuum cleaning, London Plenum Heating Co.; asphalt, Ragusa Asphalte Co.; artesian well, Isler & Co., Ltd.; cash delivery system, Lamson Pneumatic Tube Co.; metal windows, Silveroid balustrading to wells, James Gibbons, Ltd.; lift enclosure and handrails, and main electrolier, J. W. Singer & Sons, Ltd.; external balcony railings, Birmingham Guild, Ltd.; copperlight glazing, pavement lights, etc., Cuthbert & Taylor; steel lockers, etc., Sankey Sheldon, Ltd.; castlead finial, J. L. Emms; ironmongery, Yannedis & Co.; plasterwork, Plaster Decoration Co., Ltd.; stone carving, Gilbert Seale & Son; gold decoration to staircase, Service Painting Co., Ltd.; sanitary fittings, Carter & Co., Ltd.; furniture, carpets, rugs, George Williamson; pelmets, blinds and curtains, Skellorn, Edwards & Co.; gold blinds and curtains, J. Avery & Co.; decorated plasterwork, The Plaster Decoration, Ltd.; fire-escape stairs, The Lion Foundry Co.; stained leaded lights to Tudor floors, Nevins; hairdressing saloon fittings by Osborne Garrett & Co., Ltd.; Vitrolite panelling by Vitrolite Construction Co., Ltd.

Proposed Villa in Italy.

This house is designed to suit a site high up in the hills, overlooking the coast and sea in northern Italy, and is to be used as an artist's winter residence. It is broad and simple in treatment, and is to follow the local traditional method of building—the rubble walls covered with white stucco, and the roofs with red Italian pantiles. The surrounds to doors and windows will be formed in narrow coursed brickwork. The dominant feature is the studio placed in the upper story, commanding an extensive view of the surrounding scenery. The entrance roadway is at the back, and advantage has been taken of the sloping front of the site to get in an open loggia below the ground-floor level. Mr. A. N. Prentice, F.R.I.B.A., is the architect.

An Architect's Bungalow.

This bungalow has been erected at Hale, Cheshire, from the designs of Mr. J. E. Kewell, L.R.I.B.A. The accommodation provided can be studied from the small plan given on the drawing.

Wandsworth Technical Institute.

This new Technical Institute, recently completed in High-street, Wandsworth, from designs prepared in the Architect's Department of the London County Council under the personal supervision of Mr. G. Topham Forrest, F.R.S.E., F.R.I.B.A., F.G.S., Chief Architect to the Council, was opened yesterday (November 4) by the Minister of Education. The building, which is on a site at the corner of High-street and St. Ann's-hill, has been planned as a four-story block with a part basement and with the main entrance at the western end adjacent to the old Institute, and affording convenient access on the ground floor to the one-story building at the rear, erected in 1915. A staircase the full height of the building adjoins the main entrance hall, and another is placed at the junction of the main block with the St. Ann's-hill return. As the principal frontage (towards the High-street) faces north, the corridor has been planned on that side so that the classrooms, offices, assembly hall, gymnasium, and so on have the maximum advantage to be obtained from sunlight, and traffic noises from the road are avoided. The main men and women students' cloakrooms and lavatories are conveniently accessible from the ground floor entrance and corridor, as also is the assembly hall, while the Principal's room and office are also in proximity to the vestibule. On the ground floor are also some classrooms and the gymnasium.

On the first floor of the building are placed the library, common room, drawing offices, some classrooms, rooms for staff, and further lavatories, and at this level occurs the gallery of the assembly hall. On the second floor are the chemical, physical, and engineering laboratories and lecture rooms, classrooms, and further lavatories; while on the third floor occur the laundry, housewifery room, two cookery and two needlework rooms, etc., head mistress's room, staff room, and further lavatories.

The construction of the building is of fire-resisting materials throughout, and, with the exception of such rooms as the library, common rooms, and administrative offices, the internal walling is left unplastered with the main constructional steelwork exposed to view. The corridors, staircases, and some of the rooms which call for special treatment are provided with tile dadoes.

The exterior of the building is faced with multi-coloured red facing bricks, and the steep-pitched roof is finished with red sand-faced tiles. The third floor being a roof story is lighted generally by the dormer windows seen in external views of the building. The window casements are of steel, set in some cases directly in the brickwork, but more generally in wood frames. The staircases are formed of Japanese oak, with all construction exposed. The building is heated by a low-pressure hot-water heating installation with radiators placed in window recesses where possible, and with fresh-air inlets where possible in external walling.

The building contractors were Messrs. Prestige & Co., Ltd., of Grosvenor-road, and the amount of the contract was £50,832. The foundation work and basement were completed under a separate contract by Mr. A. Monk, of Edmonton. The amount of the contract was £8,665. The clerk of the works was Mr. A. H. Castle.

Following is a list of the principal sub-contractors:—Asphalt work, The Ragusa Asphalte & Paving Co., Ltd.; facing bricks, S. & E. Collier; roof tiling, H. F. Warner, Ltd.; steel casements, Williams & Williams, Ltd.; wall and floor tiling, Carter & Co. and Van Straaten & Co.; wood block flooring, "Zeta" Wood Flooring Co., Ltd.; hand-power lift, The Medway Safety Lift Co.; heating, The Fretwell Heating Co.; tar paving, A. C. W. Hobman & Co. The work of installing electric lighting and an electric lift has been carried out by F. G. Minton, Ltd., and Holt & Willetts, respectively, under the direction of Mr. G. W. Humphreys, C.B.E., the Chief Engineer to the Council. The cost of equipping the building with apparatus, benches, etc., is estimated at £10,500, and the bulk of the fittings have been supplied through the direction of Mr. F. W. Mackinney, Chief Officer of Supplies to the Council.

A Canadian Memorial Arch.

This arch has been erected at the Royal Military College, Kingston, Ontario, from the designs of Mr. John M. Lyle, of Toronto. The original of our illustration is now on view in the Exhibition of Dominion and Colonial Architecture at the R.I.B.A.

Delville Wood Memorial.

The South African Memorial at Delville Wood, recently unveiled, has been erected from the designs of Sir Herbert Baker, A.R.A. The bronze sculpture group crowning the central feature (illustrated on our "Notes" pages), is the work of Mr. Alfred Turner, A.R.A. The model of this group, it will be remembered, was on exhibition in the courtyard of the Academy some two or three seasons ago. We are asked to state that the latest protective devices in lightning conductors have been provided on the memorial by Messrs. W. J. Furse & Co., Ltd., of Nottingham and London.

MEETINGS

MONDAY, *November* 8.

Surveyors' Institution.—Presidential Address 8 p.m.

TUESDAY, *November* 9.

Royal Institution of Great Britain. Mr. G. W. C. Kaye on "Acoustics of Public Buildings." At 21, Albemarle-street, W.1. 5.15 p.m.

Builders' Benevolent Institution.—Annual dinner. At Hotel Victoria, Charing Cross, W.C.2. 7 p.m.

Design and Industries Association.—Messrs. G. Russell and C. A. Richter on "Furniture." At 6, Queen's-square, W.C.1. 8 p.m.

WEDNESDAY, *November* 10.

Architecture Club.—Annual dinner. At the Savoy Hotel. 7.30 p.m.

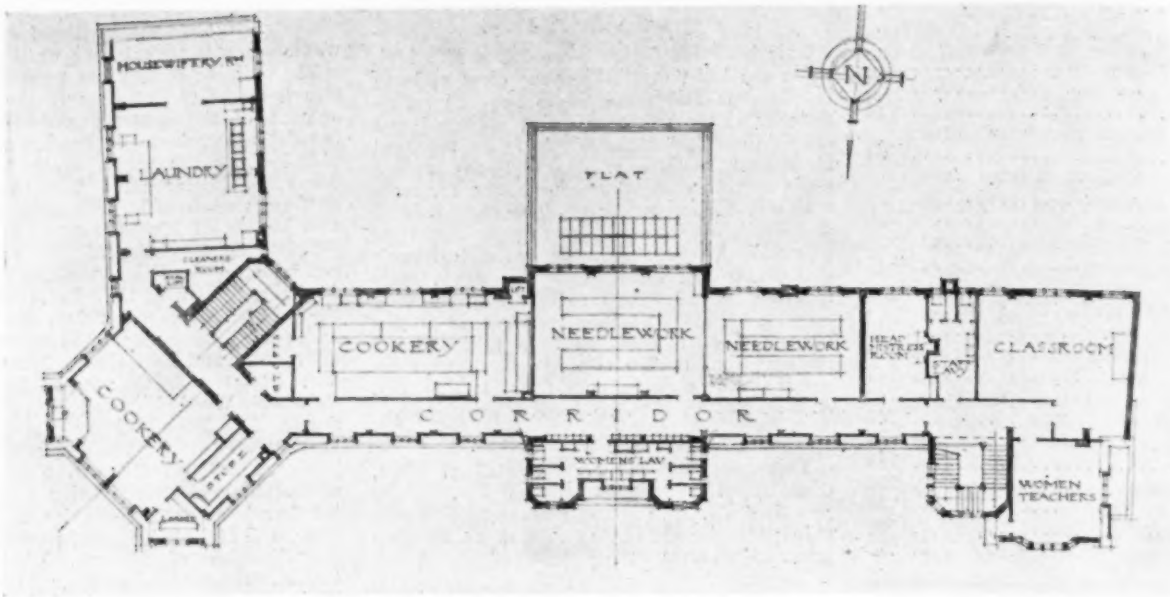
Royal Academy of Arts.—Professor A. P. Laurie on "Theory of Colour and its Application to Painting." Burlington House, W.1. 4 p.m.

THURSDAY, *November* 11.

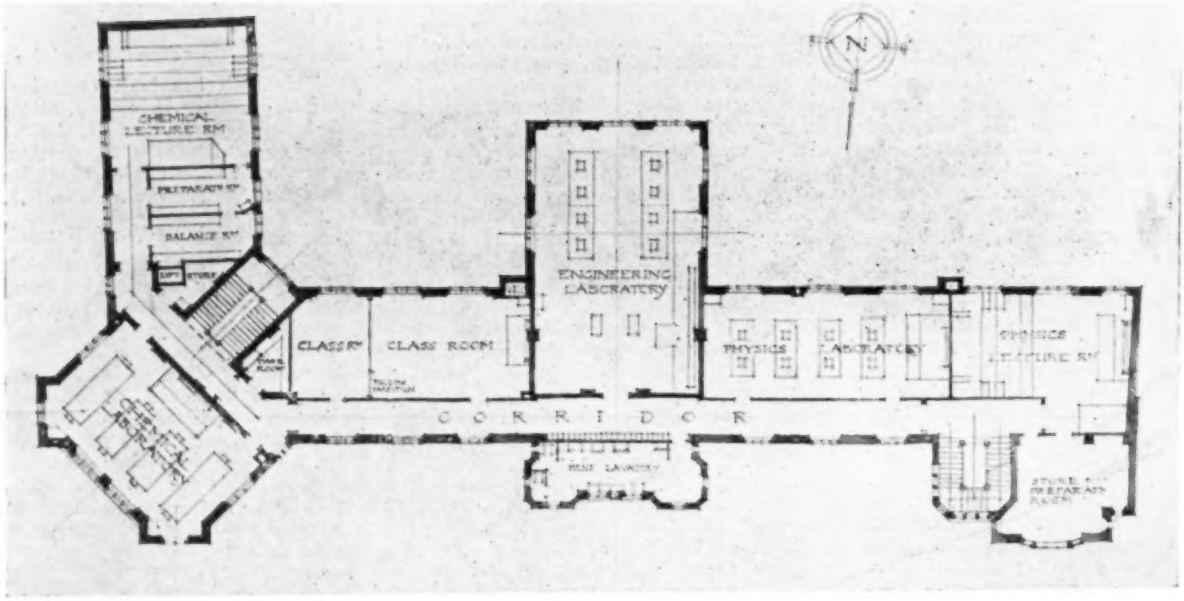
Society of Antiquaries.—"Early Iron Age Pottery from Macedonia," by Mr. W. A. Heurtley. "Some Greek Seals of the 'Geometric' period and a Rare Type of 'Geometric' Bronze," by Mr. S. Casson. 8.30 p.m.

Victoria and Albert Museum.—Mr. W. A. Thorpe on "English and Irish Glass." At South Kensington, S.W.7. 5.30 p.m.

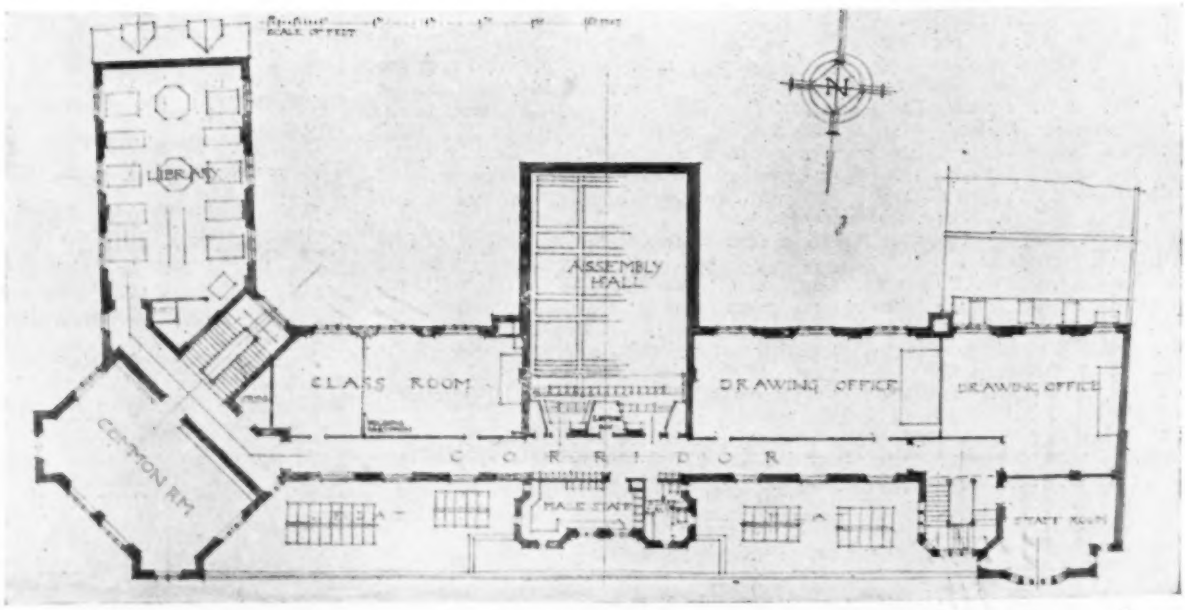
Glasgow Architectural Craftsmen's Society.—Mr. Jas. Macaulay on "Some Aspects of Regional Planning." At the Royal Technical College. 7.45 p.m.



THIRD-FLOOR PLAN.



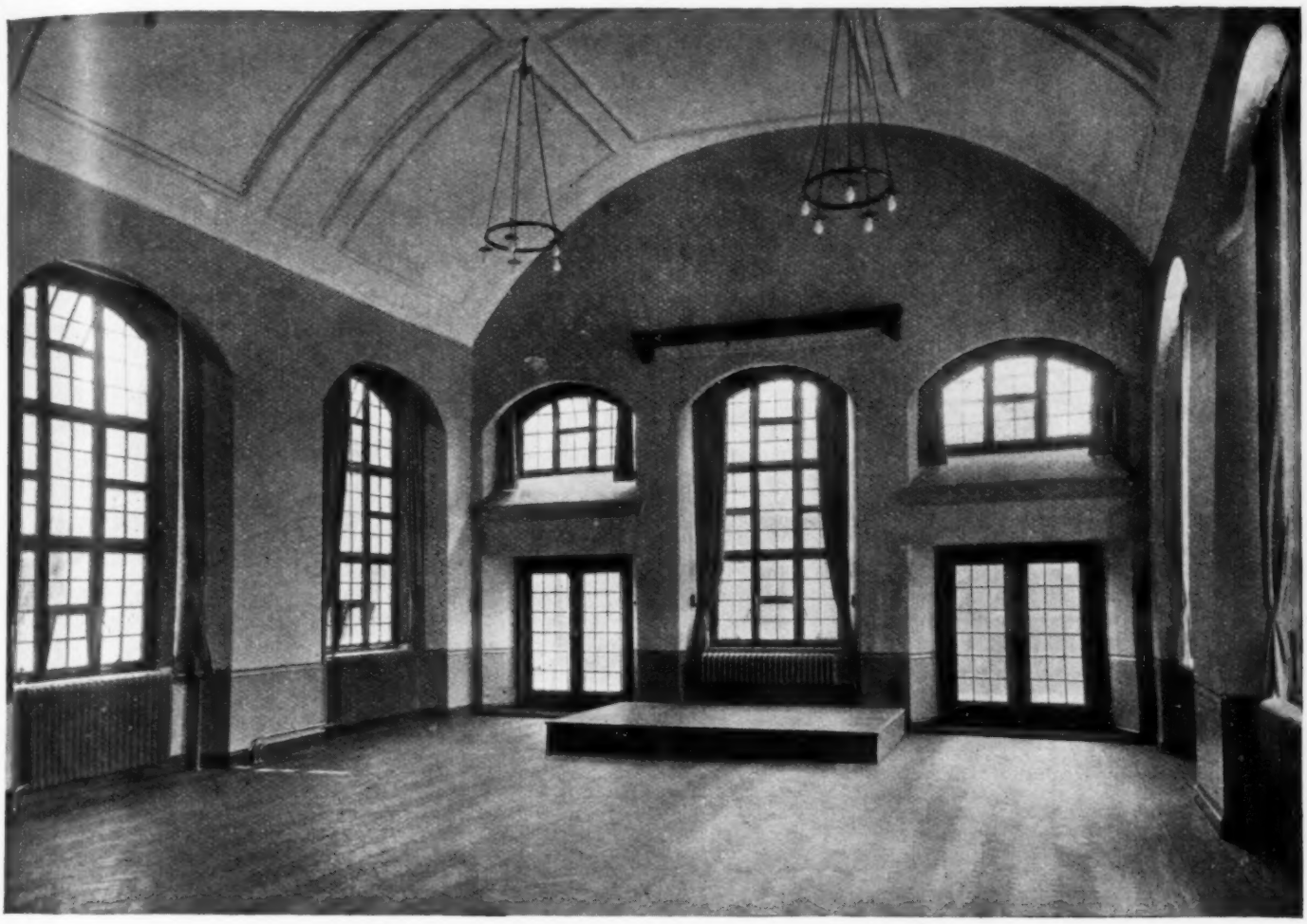
SECOND-FLOOR PLAN.



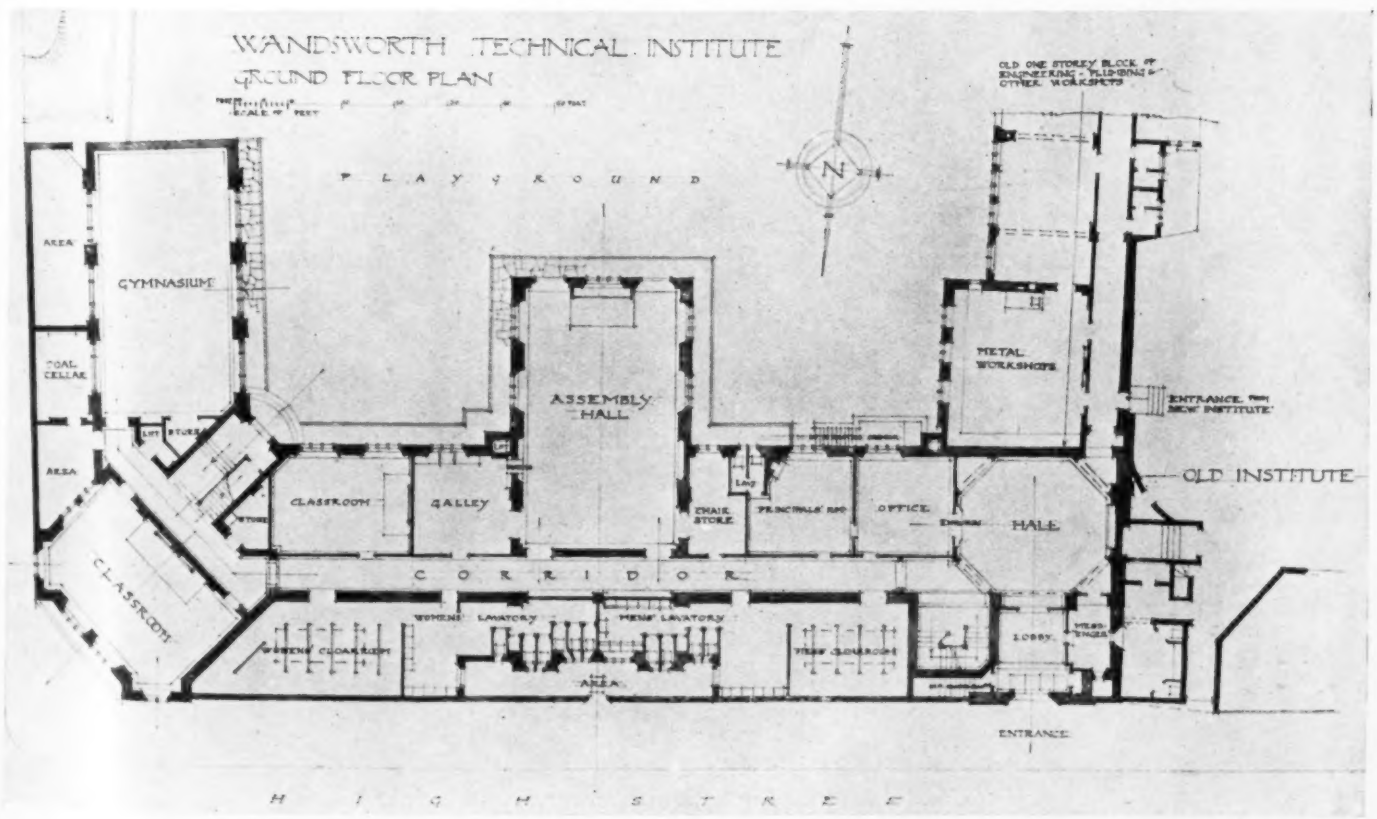
FIRST-FLOOR PLAN.

Wandsworth Technical Institute.

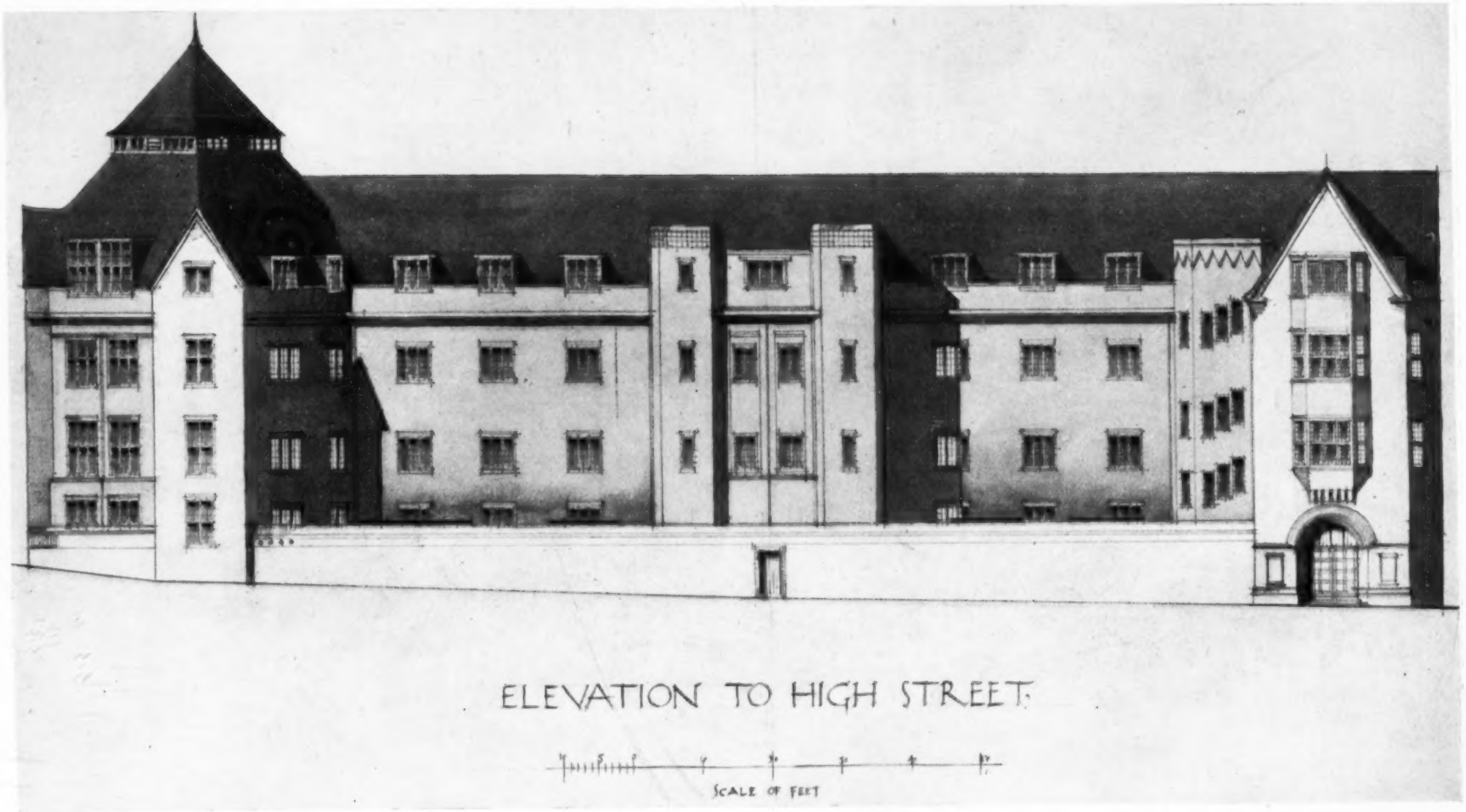
MR. G. TOPHAM FORREST, F.R.I.B.A., Architect to the L.C.C.



Assembly Hall.



Wandsworth Technical Institute. Mr. G. Topham Forrest, F.R.I.B.A., Architect to the L.C.C.



Wandsworth Technical Institute.

MR. G. TOPHAM FORREST, F.R.I.B.A., Architect to the L.C.C.

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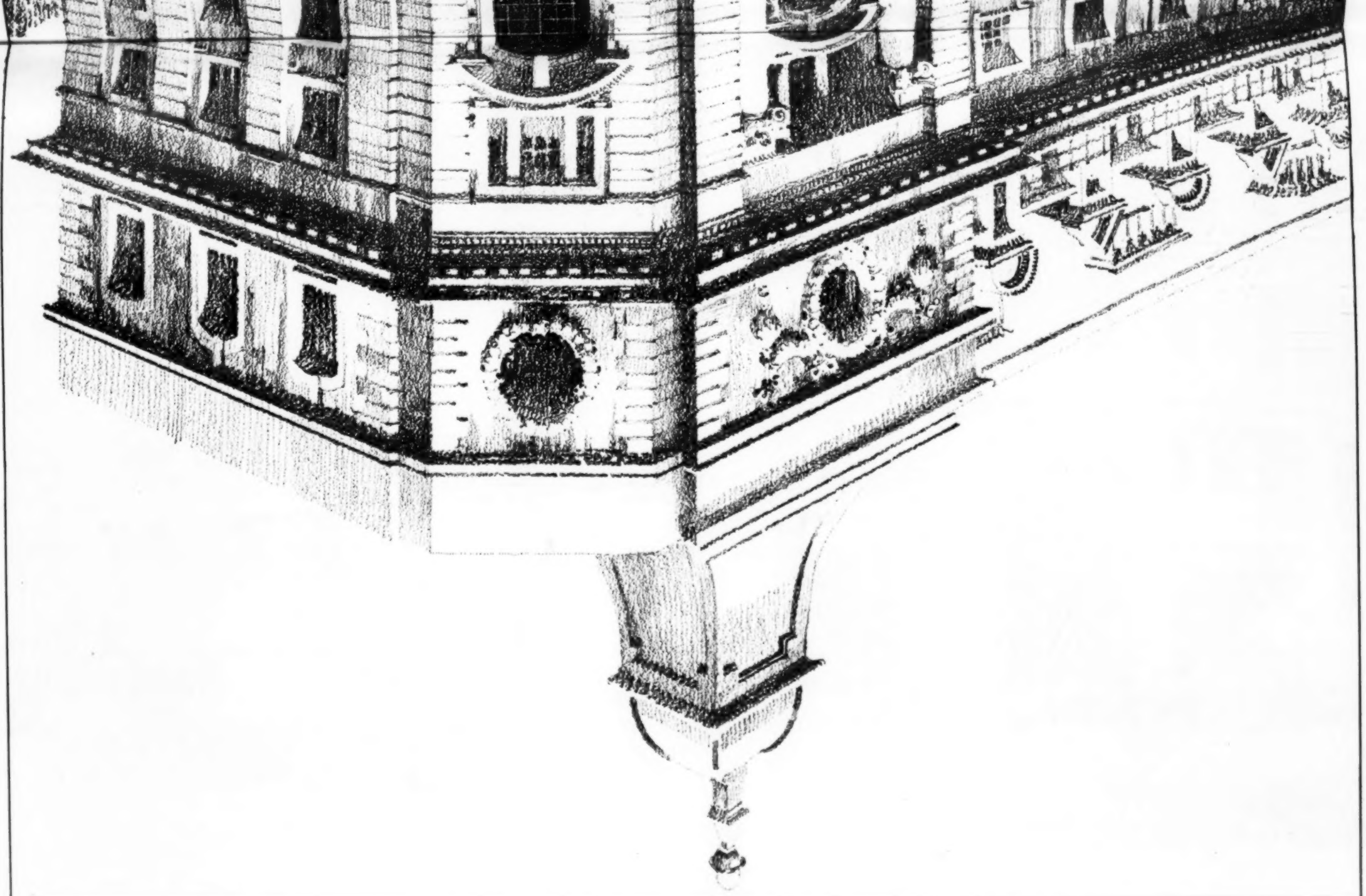
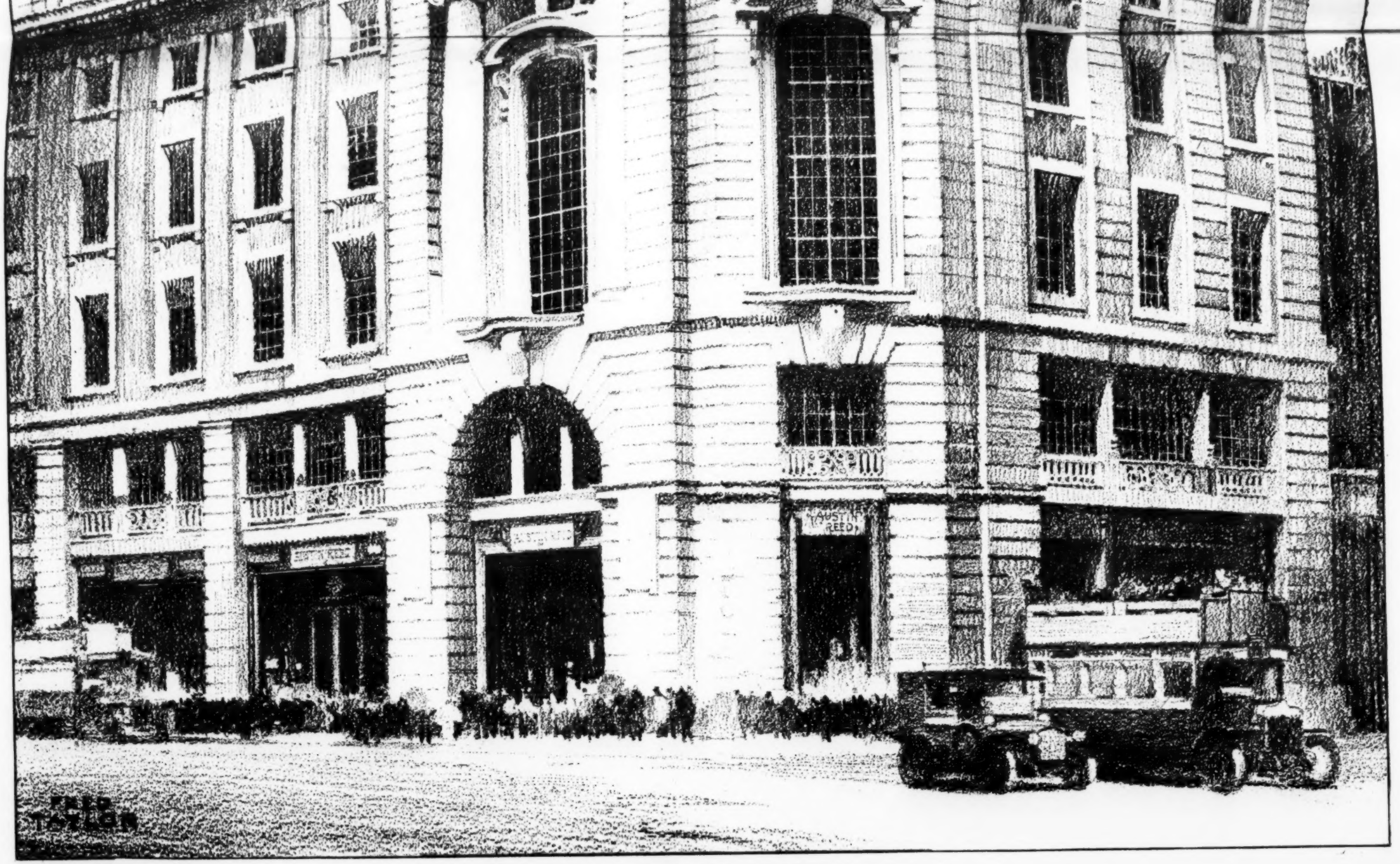
Mr. G. Topham Forrest, F.R.I.B.A., Architect to the L.C.C.

UNIV. OF MICH.



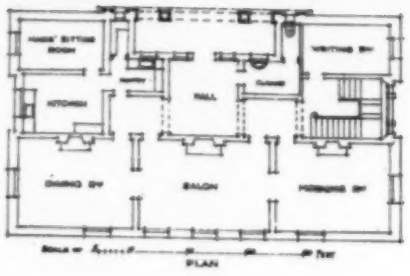


NEW BUSINESS PREMISES: THE QUADRANT, REGENT STREET, W.

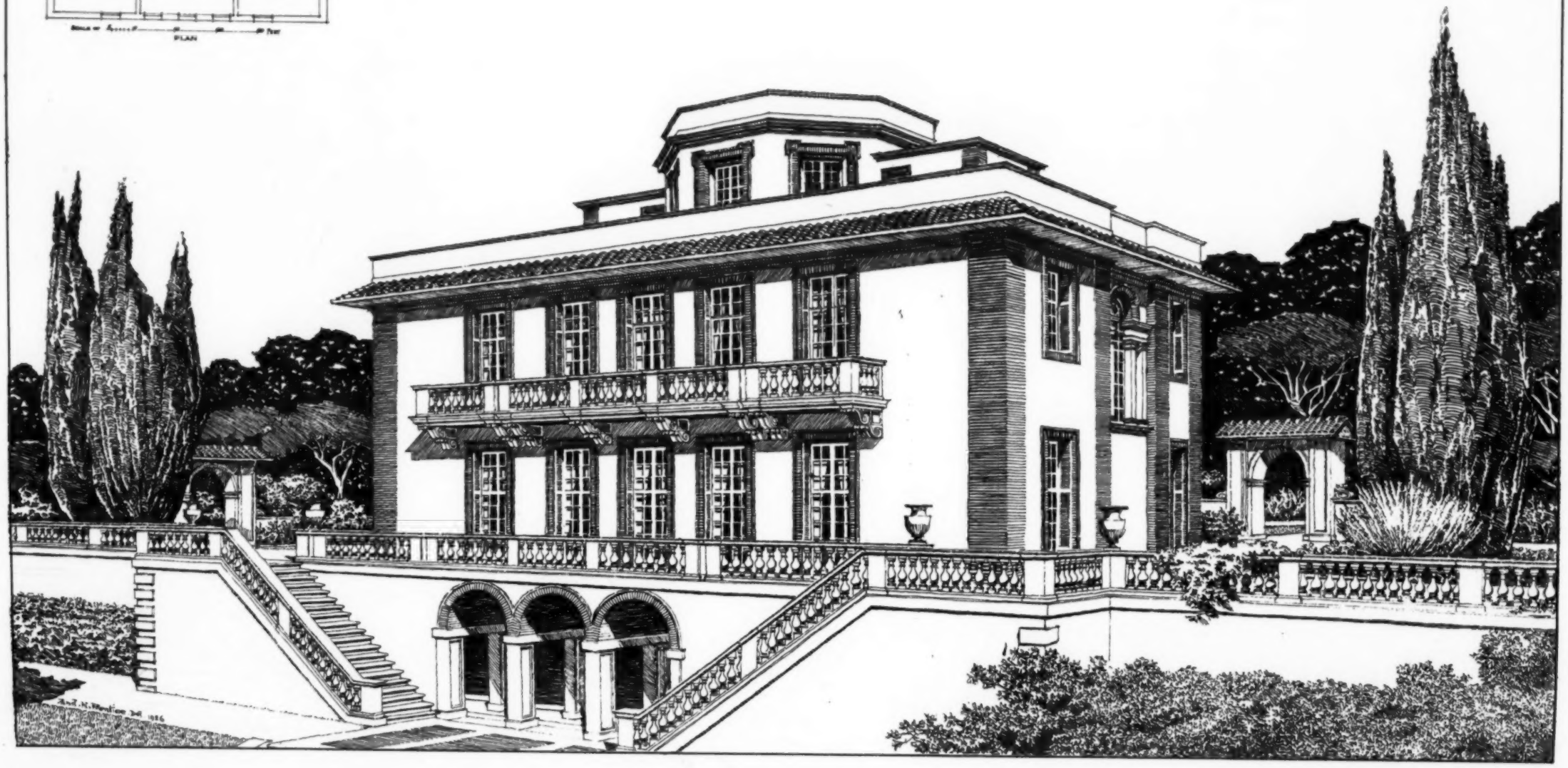
Sir Reginald Blomfield, R.A., Architect for the External Elevation.

Messrs. P. J. Westwood & Emberton, F. & A.R.I.B.A., Architects for the Interior.

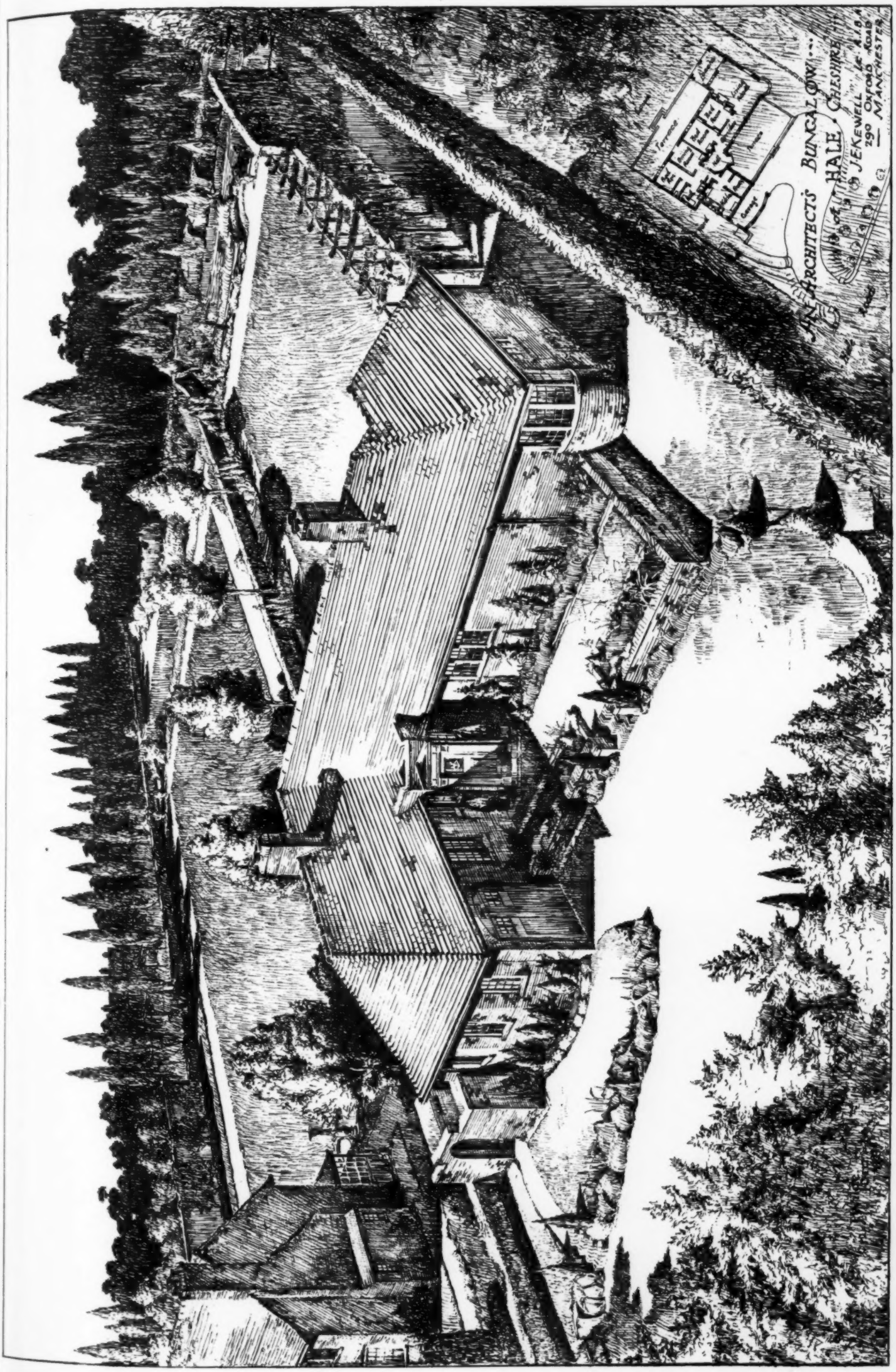
PROPOSED VILLA IN ITALY



PLAN

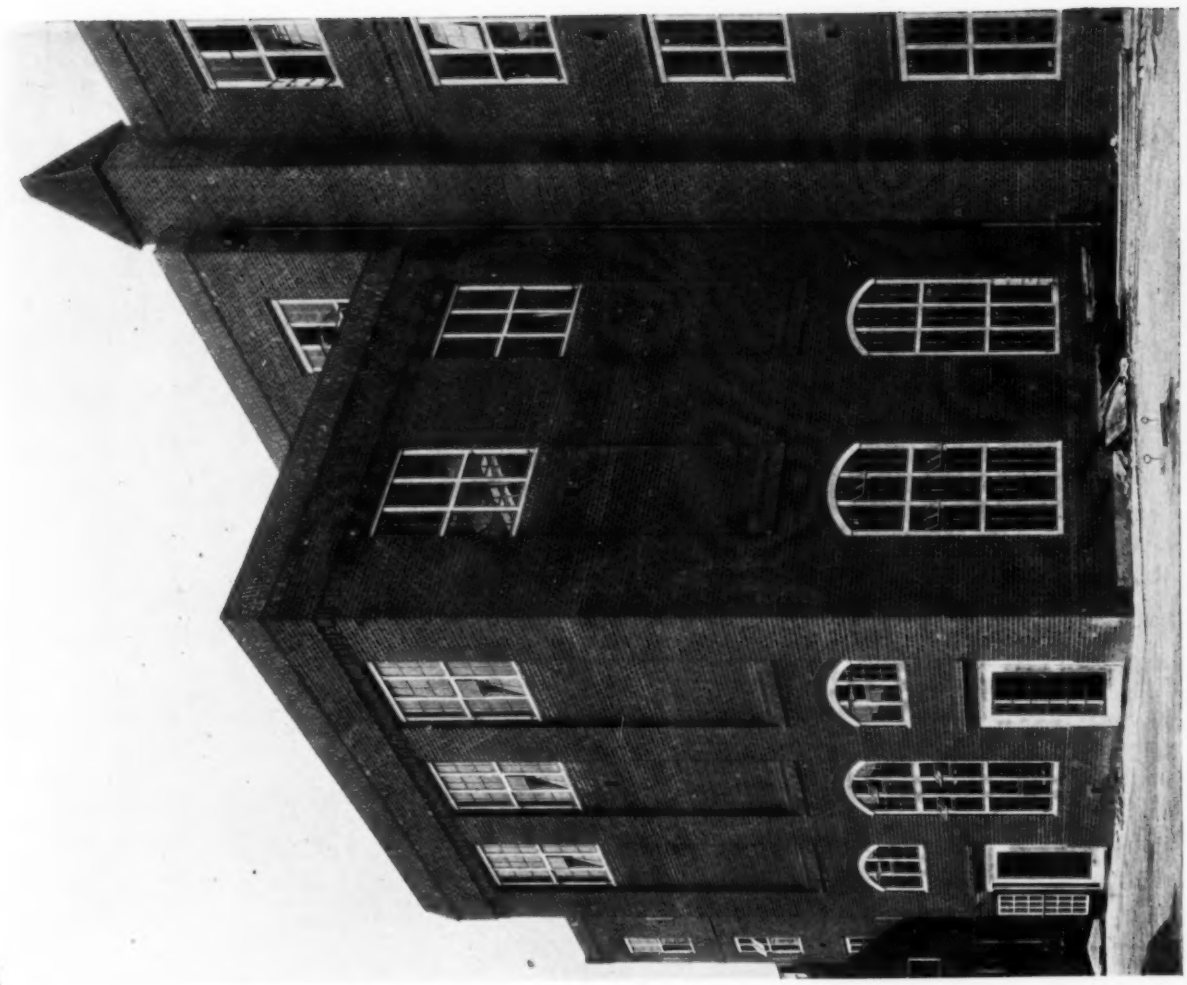


A PROPOSED VILLA IN ITALY.
Mr. A. N. Prentice, F.R.I.B.A., Architect.



AN ARCHITECT'S BUNGALOW, HALE, CHESHIRE.
Mr. J. E. Kewell, L.R.I.B.A., Architect.

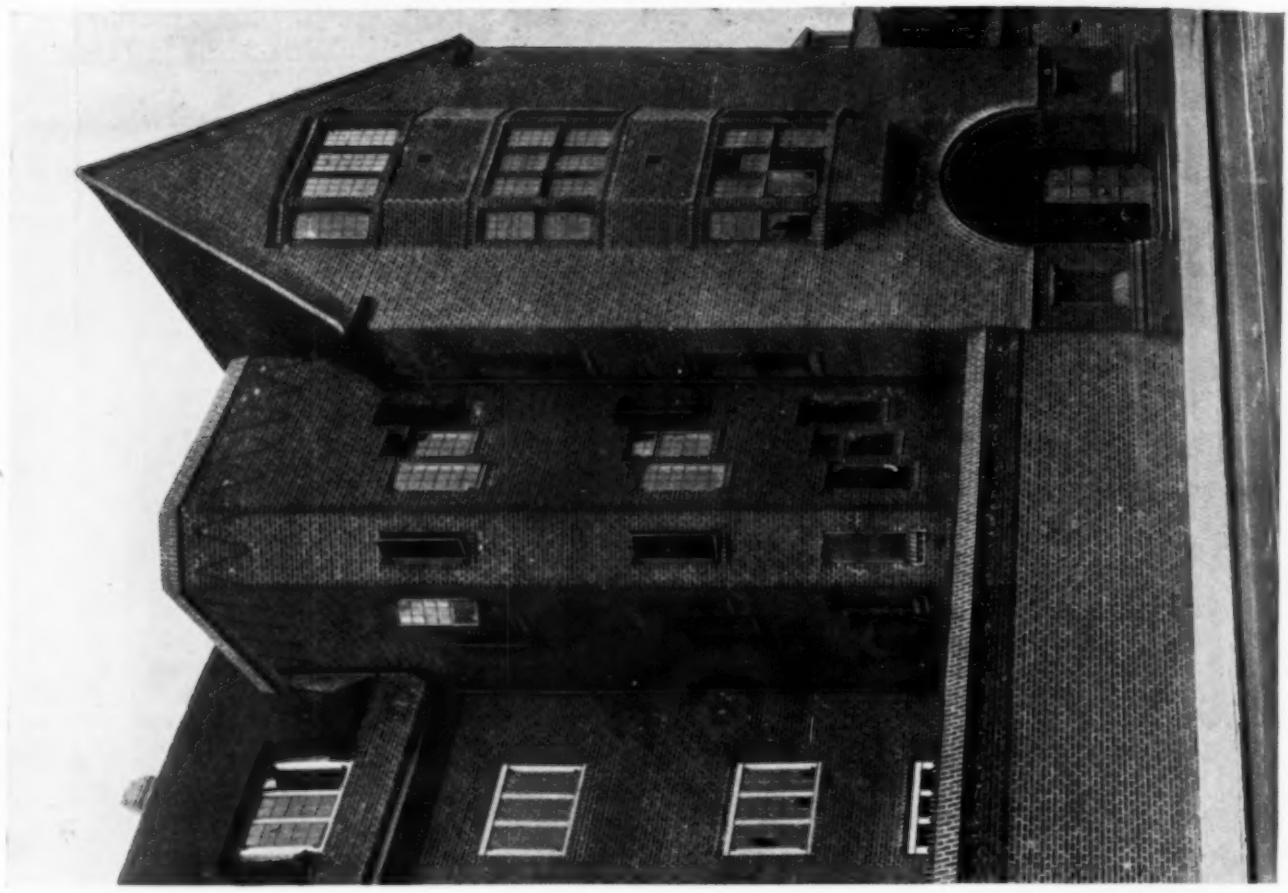
UNIV. OF MICH.



REAR ELEVATION.

FRONT ELEVATION.

Wandsworth Technical Institute. MR. G. TOPHAM FORREST, F.R.I.B.A., Architect to the L.C.C.

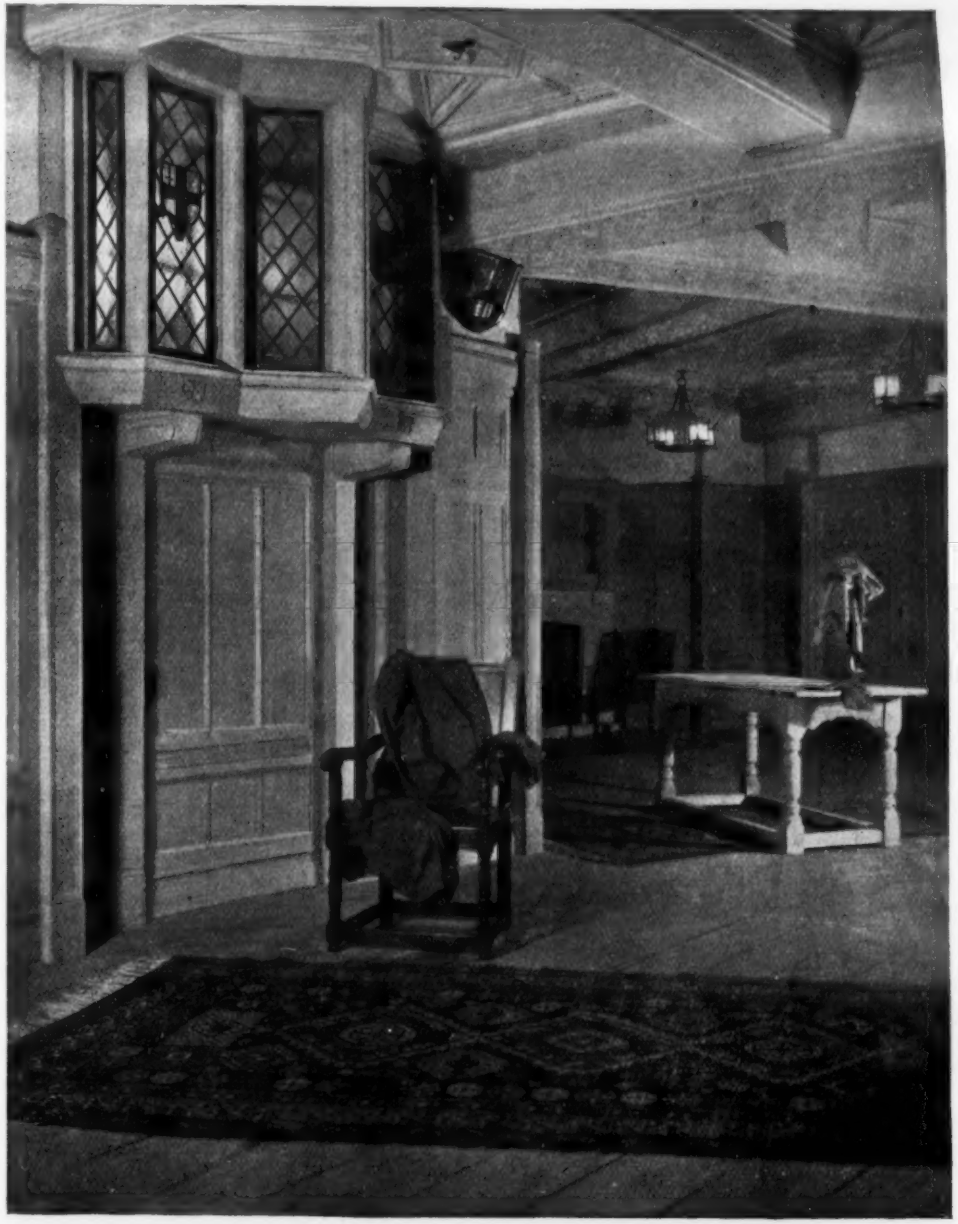


MAIN ENTRANCE, SHOWING EXTERIOR OF STAIRCASE.

EAST ELEVATION.

Wandsworth Technical Institute. MR. G. TOPHAM FORREST, F.R.I.B.A., Architect to the L.C.C.

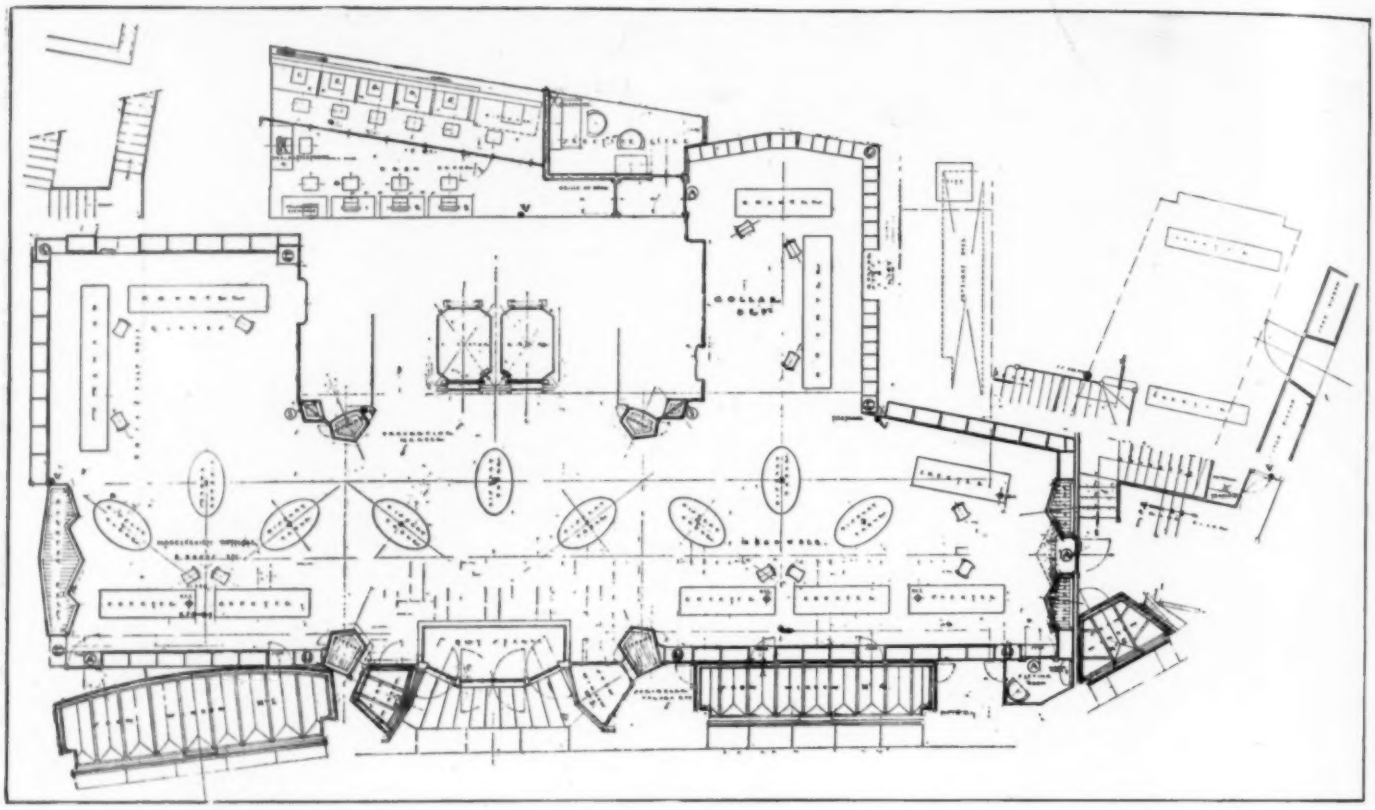
THE LIFT ENTRANCE.



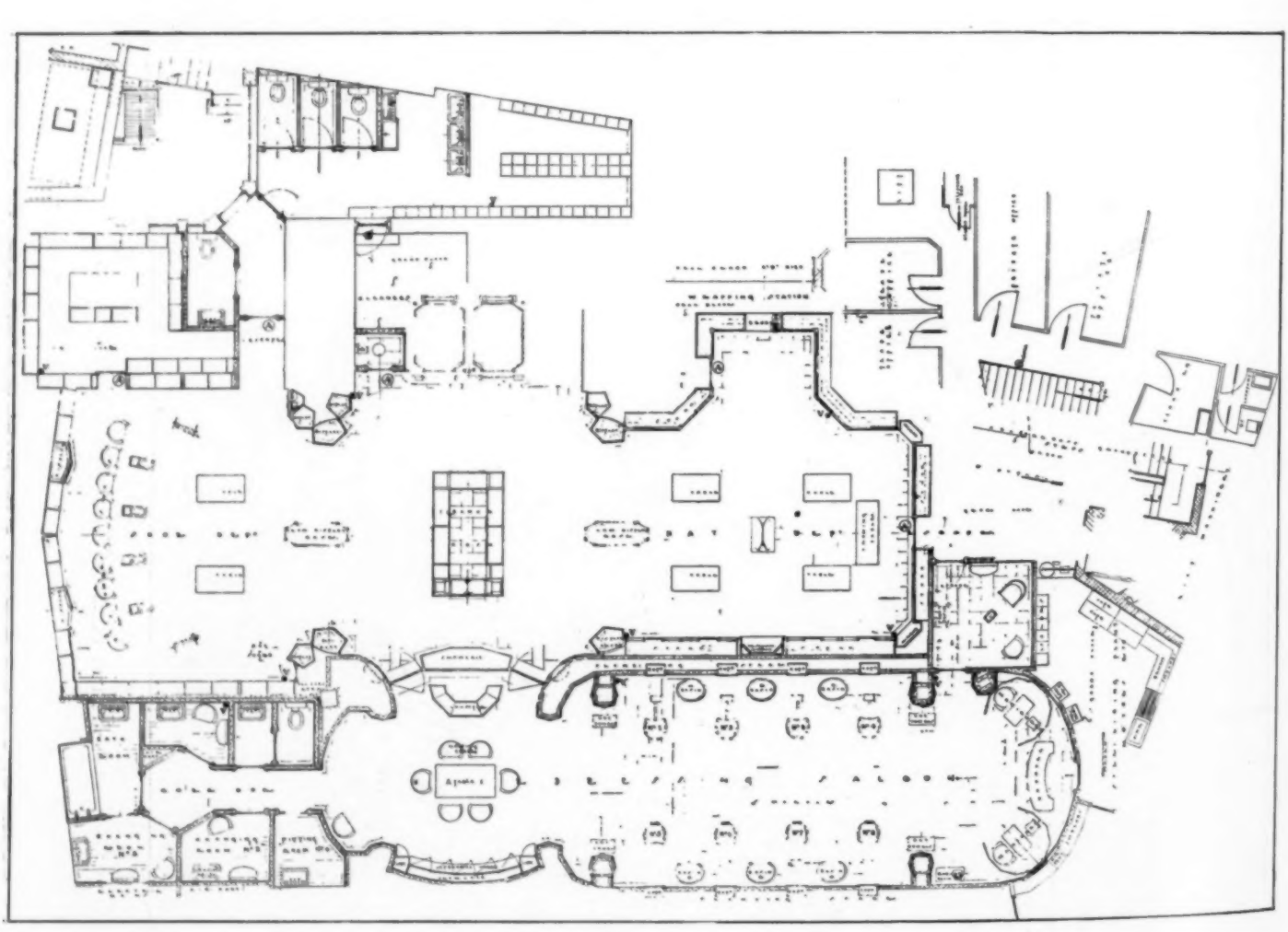
THE TUDOR SHOWROOM.

New Business Premises, The Quadrant, Regent-street, W.

Messrs. P. J. Westwood & Emberton, F. & A.R.I.B.A., Architects.



GROUND-FLOOR PLAN.

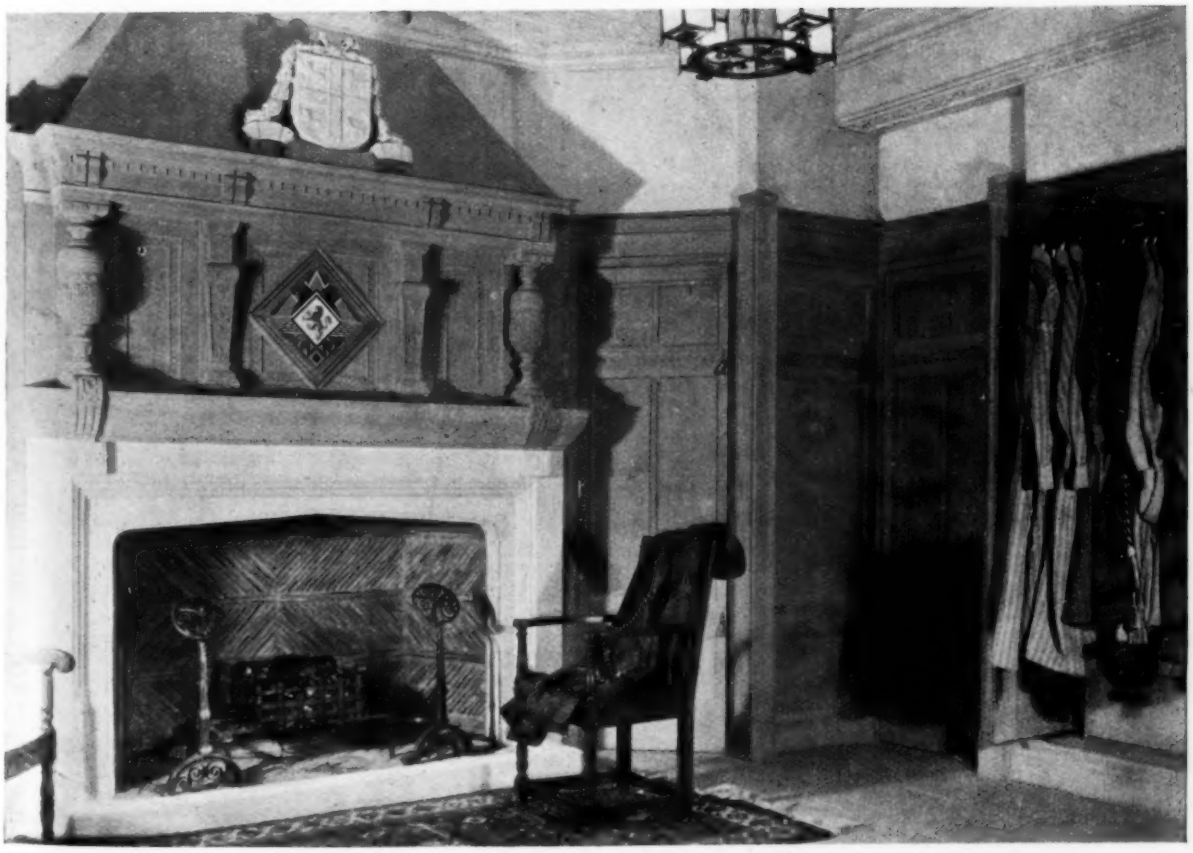


LOWER GROUND-FLOOR PLAN.

New Business Premises, The Quadrant, Regent-street, W.

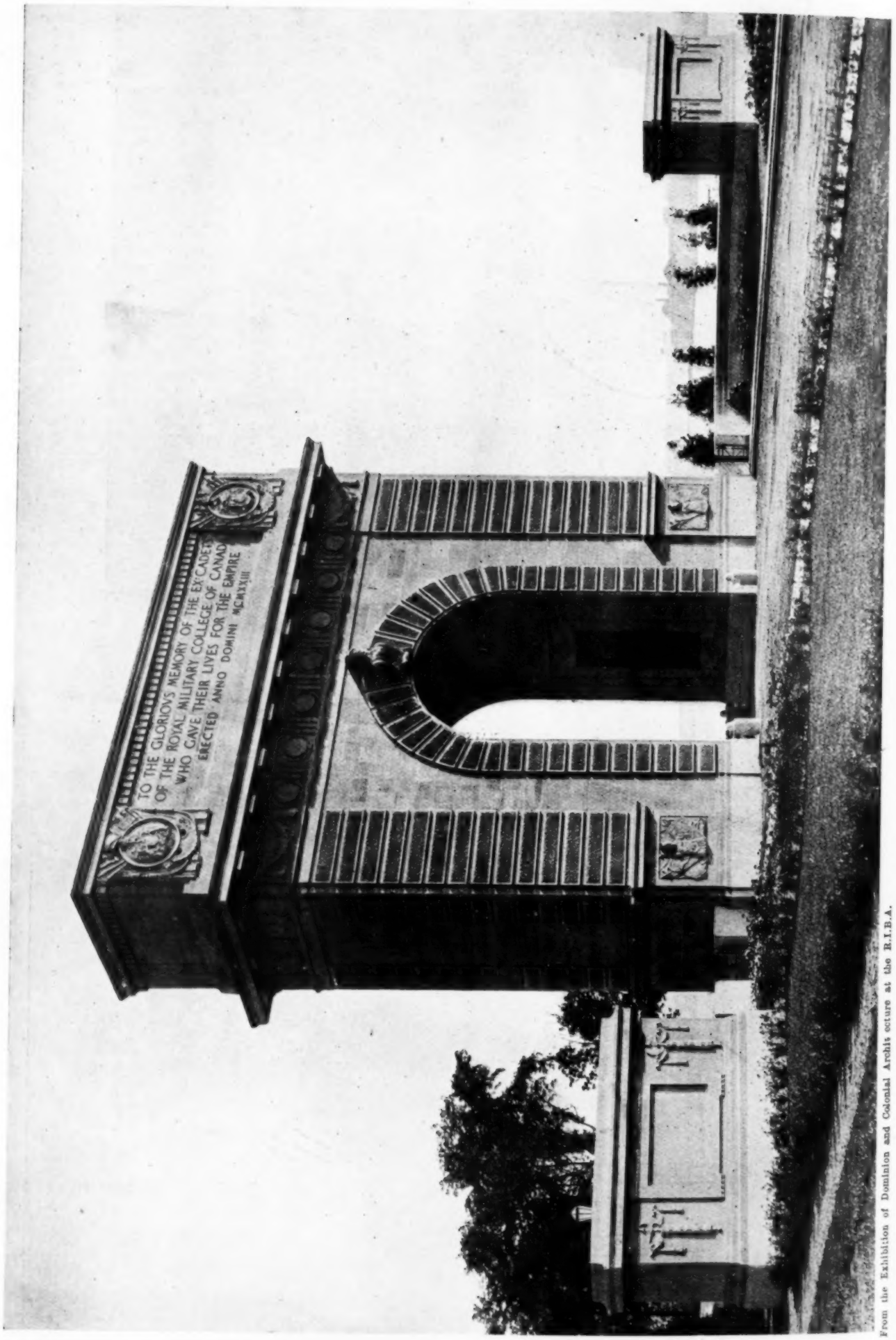
MESSRS. P. J. WESTWOOD & EMBERTON, F. & A.R.I.B.A., Architects.

MAIN STAIRCASE.



CHIMNEYPIECE IN TUDOR SHOWROOM.

New Business Premises, The Quadrant, Regent-street, W. MESSRS. P. J. WESTWOOD & EMBERTON, F. & A.R.I.B.A., **Architects.**


TO THE GLORIOVS MEMORY OF THE EX-CADET
OF THE ROYAL MILITARY COLLEGE OF CANAD
WHO GAVE THEIR LIVES FOR THE EMPIRE
ERECTED ANNO DOMINI MCMXXIII

Memorial Arch, Royal Military College, Kingston, Ontario.
MR. JOHN M. LYLE, Architect.

From the Exhibition of Dominion and Colonial Architecture at the R.I.B.A.

ENGLISH CAST-IRON.—II

By W. R. LETHABY.

At the end of the sixteenth century iron working in Sussex greatly increased. Norden, in *The Surveiors' Dialogue, very profitable for all men to peruse*, writes of woods: "It is no marvell if Sussex and other places be deprived of this benefit: for I have heard that there are, or lately were, in Sussex, neere 140 hammers and furnaces for Iron."

A large number of works in cast iron may be certainly assigned to the second half of the sixteenth century. Many of these are actually dated.

Tombs.—A grave slab at East Grinstead bears the date 1570; another at Withyham, 1582; and yet another at Crowhurst, 1591. This last, the memorial of Anne Forster, is quite an elaborate work. In the middle is an effigy of herself between two boys kneeling on one side and two girls on the other. Below are small shields of arms and the inscription:—

HER LIETH ANE FORST
ER DAUGHTER AND
HEYR TO THOMAS
GAYNSFORD ESQUIRE
DECEASED XVIII OF
JANUARI 1591 LEAVYNG
BEHIND HER 11 SONES
AND V DAUGHTERS.

The whole is surrounded by a vine border, which was formed by repeating one portion. This was either impressed several times in an open sand mould, or several casts of it were attached to a wooden model. Some of the letters of the inscription are reversed, and they must also have been separately formed in the mould. It was the vine border of this slab, I believe, which was given in Fig. 2 last month.

A considerable number of later grave slabs exist. One of two or three at Wadhurst, dated 1648, has a coat of arms and inscription; another has three shields and initials W.B.; another, dated 1752, is inscribed in brass letters on the iron plate to the memory of "John Legas, gentleman, who, by his industry and intelligence in the iron works of this country, acquired a handsome fortune with great credit and reputation." At Streat are some late grave slabs, and at Frant, near Tunbridge Wells, are said to be several others, but on a recent visit I failed to find them under the covered floor. At Alfriston (Surrey) a cast-iron plate, bearing the inscription, is inserted in an outdoor tomb. A low cross wholly of cast iron is, or was, at Croydon.

Firebacks.—A Sussex fireback bears the inscription:—

THOMAS UNSTED ISFIELD AND
DINAS HIS WIF: ANO DOMINI 1582.

in irregularly spaced and undulating lines of letters. Over the inscription, in a little gable-like projection, is the crowned badge of Queen Elizabeth and five small shields of arms. On another is the lettering—

THES IS FOR IAMES HIDE AND ION
HIS WIF 1582

FIG. 1.

In the Victoria and Albert Museum is a back with an inscription in a similar form and the same date. It is said to be from Helmsley, Yorkshire, but it must have come from Sussex originally.

Firebacks of this time must be very numerous. Since finishing my last part I was taken to look over a house near Victoria, and as we entered the very first thing I saw was an old fireback

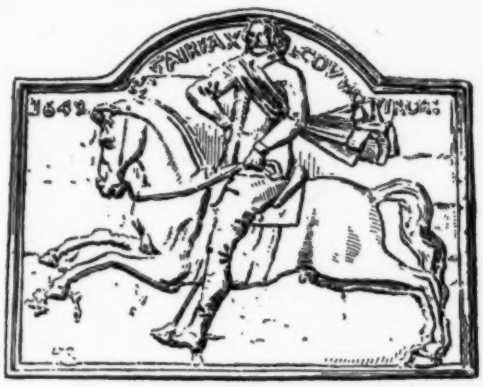


FIG. 2.

FIG. 3.

in the hall fireplace. It is dated 1588, and bears the initials I.F.C. (Fig. 1). A still greater number of later firebacks are in existence.

Many bear coats of arms, Scripture subjects, and classic stories—David and Goliath, the Queen of Sheba, or the Annunciation; Hercules and the lion, Vulcan and his forge, Juno in her peacock-drawn car, Venus, Neptune, Apollo. Others again have Fables of Æsop; then there are the Seasons, allegories and impersonations, and simple subjects like a chariot driving over a bridge, the Early Bird getting the Worm, a Parrot in a ring, the Royal Oak, Soldiers. I give sketches of one with the mounted figure of Lord Fairfax, 1649, and of another with a relief of a Roman Soldier, 1746—a quite charming work. (Figs. 2 and 3).

A fireback of which I have a sketch has for centre a large apple-tree with a Cavalier and a Lady on either side; she offers him a flower or fruit—a new Eve. Others, again, have a single figure of a girl with bird on finger or pouring wine; one in the Museum of Lewes has a Salamander. These were pleasant enough conceits for the fireside; the mere catalogue seems to suggest something of the kind of life which demanded such things. The technical achievement of the poorest of these firebacks is very far from high, but they all seem to have a real motive or reference to something pleasant and suggestive. All are treated with great simplicity and that instinct for balance and spontaneous freedom which is the mark of the traditional crafts. The system generally followed was to preserve some spaces of the flat field and for the modelling to be in quite low relief pretty equally distributed. They were decorated plates of iron rather than cast sculptures.

Firedogs.—Many of the ancient andirons or firedogs which accompanied the firebacks are gathered in our museums; all these show the characteristic lumpiness of the material. Some had figures, others were plain obelisk or vase and baluster forms, but the material was never pressed beyond its limits. Simplicity alone never fails; it is the charity of design which covers a multitude of imperfections. To aspire is well, but to aspire vulgarly and fail weakly is to make art an offence. In my Gray's Inn days I used to have a pair of small andirons which had compact little figures of girls standing on bases. I believe they were from the Carron foundry, and doubt if they were earlier than 1800. Fig. 4 is a memory sketch.

Other things of early manufacture were vessels. "Brewing cisterns pots and mortars," are mentioned as productions of Staffordshire foundries in the sixteenth century. In France I have seen large mediæval cast-iron mortars for kitchen use, and I wonder now if they suggested and gave their names to the military engines. (On referring to Skeat I find that this conjecture accords very well with the facts.)

Railings.—The railing about St. Paul's Cathedral was cast at Lamberhurst, on the Sussex border of Kent, about 1715. It cost £11,202, and is said to contain some 2,500 standards, to weigh about 200 tons, and to enclose two acres. It was a big work for a little country town, and the hauling of the railing over the steep and deep roads to London was no light task. I do not see how the railings could have been better, they are heavy and rather blunt as befits the situation and the material of which they are made. All the rails are of baluster form with a stronger one of similar profile coming at every seven or eight feet. They are set on a dwarf wall rather than a curb. The gates are similar, solid panels occupying the lower parts ranging with the dwarf wall. The gates are hung to strong groups of the baluster rails formed by carrying a dozen of them round in a small circle or forming a square group of them on suitable widenings of the dwarf wall.

When the enclosure of the Cathedral had to be considered, Wren recommended that it should be of wrought iron, giving it as his opinion that wrought iron was much cheaper and more durable than cast. In a letter of 1710–11 he wrote: "Nothing can be said to remain unperfected but the Iron Fence round the church and painting the Cupola, the directing

FIG. 4.

of which is taken out of my hands. . . . As for the iron fence, it is so remarkable and so fresh in my memory by whose instance and importunity it was wrested from me."

Wren had earlier projected an arcaded piazza completely surrounding the church, and his protest probably relates in part to the position of the iron railing. As set up the cast iron railing enclosed the western space in which is the statue of Queen Anne. Dean Milman disliked this western enclosure, and Longman, in his account of the Cathedral (1873) recorded that the "misplaced fence and wall are now condemned and shortly we shall be able to see the front of St. Paul's unencumbered."

So it was, and on January 8, 1874, "the iron railings at the west end of the Cathedral, including the western gates, were sold by public auction for £349 5s. Part of the railing found its way to Toronto, where it encloses the monument of Mr. John G. Howard, of that place, architect. (W. S. Simpson's *St. Paul's and City Life.*) This tomb and railing are illustrated in *The Builder*, October 16, 1880, together with an account of how the ship carrying the railing away was wrecked and only a portion "recovered in a very mutilated state." On the tomb enclosure is this inscription:—

"S. Paul's Cathedral for 160 years I did enclose.
Oh! stranger look with reverence.
Man! man! unstable man!
It was thou who caused the severance."

November 18, 1875. —J. G. H.

It does not appear so far as I know whether Wren, after all, actually designed the railing; it is probable, I think, that he did, for seven years later he was having another dispute about the parapet, and it was not until 1718 that he was dismissed.

The railings at St. Paul's were followed by a great number of cast iron enclosures, and many of the eighteenth century may still be found. The heavy and entirely suitable railing of St. Martin's-in-the-Fields is one of these, and I suppose it dates from about 1730. The enclosing railings of Bloomsbury-square (*c.* 1790?) is an excellent work, so excellent that unless one's mind were on the subject it would be passed a hundred times without being noticed. The vases over the main standards and the intermediate terminations are in their way perfect, that is, for this sort of thing better is hardly required. At the back of the main standards are additional buttressing pieces of S form in round section. The railing of a house on the north side of the same square at the corner of Bedford-place is also an admirable work, tall and strong (Fig. 5). I hope that some

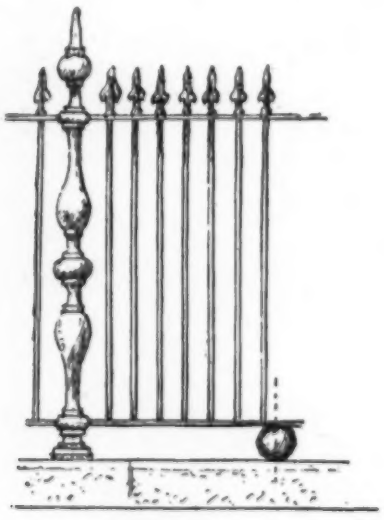


FIG. 5.

few of the students of "architecture" who assemble in multitudes in this neighbourhood observe such things. It would be something to make oneself an expert in iron railings. The sort of things I am speaking of look very easy to do, ordinary and even "poor," but only the power brought by custom will get them just right. More and more I come to see that "art" requires a depth that can only be given by custom. Clever one-man whim works cannot live, they are too thin and naked.

At 35, Lincoln's Inn Fields (south side) is an altogether admirable iron railing having delicate baluster-like main standards and plain uprights between; the gate posts are wide pilaster-like pieces of open work wonderfully well done. There is a quite beautiful iron railing near Apsley House, at the west end of Piccadilly, which has wide pilaster-like strips of open work at intervals. On the west side of Lincoln's Inn is, or was, a railing with such pilaster-like standards, of lattice work and round, flat discs. Of the plainer types of iron railing, made up of straight bars with thicker posts terminated by a vase-like form, there remain innumerable examples; these vases and the spear-ends of the lesser bars are always compact and stout—few are broken away. Fig. 6 is from railing terminations close to where I am writing; these are late (*c.* 1850) and over elaborate, but very well done. On the west side of Lincoln's Inn is an area railing of curved lines, much like wrought iron but with a difference (Fig. 7). It is continued up the sides of the steps at the entrance, and the pattern is adapted to the rising lines in a most ingenious way. It is worth looking at; I suppose the thought was to keep it as open as possible so as not to intercept light to the basement; anything can be done in the common-sense style!

FIG. 6.

I have just seen a drawing by Mr. Raffles Davison of a big square tomb in Chiswick Churchyard which was designed by Soane and dated 1812.* It is surrounded by an iron railing having ornamental L shaped pieces at the four angles. On the railing around Henry VII's Chapel, Westminster, are some vase-like terminations about 12 in. high of excellent form.

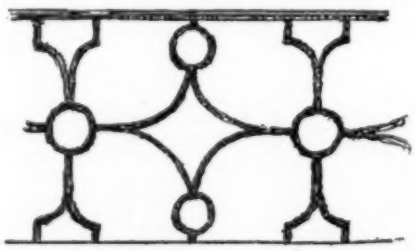


FIG. 7.

Gates.—The massive gates at St. Paul's have been mentioned. At the entrance to the Scottish Office in Whitehall are some low cast-iron gates with diagonal braces X, which could hardly be better—indeed, within their limits they could not be improved, they are examples of carefully executed common sense. His Majesty's Stationery Office, Prince's-street, Westminster, is entered through a pair of admirably-designed cast-iron gates. They are very plain, little more than an assembly of round iron bars, but parts are strengthened by thin flat work at top and bottom like the webbing of a duck's foot. On either hand are a pair of good simple lamp-posts. The entrances to Hyde Park from Park-lane are of somewhat similar work. One of these has large cast-iron gate piers and additional slender baluster-shaped hanging posts which are suggestive. Short lamp standards on the masonry-gate piers are also quite good. The gates at Hyde Park Corner are remarkably able pieces of workmanship, but they are too much in the sham Greek style and too ornate to be helpful to us. Many gates are hung to open-work piers, also of iron. Some of the kind have already been mentioned, with railings. I give in Fig. 8 a little photograph of a late example (*c.* 1840) on

* See our last issue.—ED.

FIG. 8.

Notting Hill. There were also many varieties of plain cast posts (Figs. 9 and 10). These, I suppose, had the "caps" put on separately.

Balconies and Verandas.—For about a century (say from 1750 to 1850) a balcony seems to have been desired by all dwellers in town houses. One sees them everywhere on the fronts of houses in London, from the City to the farthest suburbs, and in many cases on quite humble houses. They are found, too, in provincial towns, especially in holiday places and health resorts — Brighton, Bath, Hastings. I remember especially the pleasant oldest terrace along the front at Littlehampton (Fig. 11), and I am told of some at Ashby-de-la-Zouche. There must have been a custom of use or some health and open-air "movement" to account for this fashion of the time—the Balcony period.

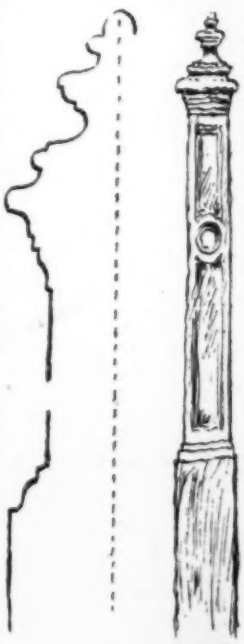


FIG. 9.

Many of the earlier railings were of wrought iron, but as the demand increased cast iron came to be generally used, and for this purpose really delightful balustrades were devised in great variety, which were inventive, suitable to the material, and refined. They show indeed that before the age of style-mongering tightened its grim hold that English manufacturers really could do pleasant and reasonable things. Some of the railings were formed of simple uprights, some of open pilaster-like strips, and others, which were the most characteristic, were all-over lattice panels. In the Lincoln's Inn and

FIG. 10.

FIG. 11.

Bloomsbury district sufficient examples might be seen to fill a catalogue. Fig. 12, from late examples, are in the next street to mine. For

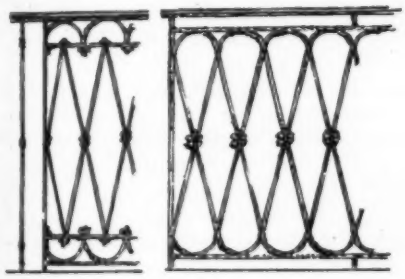


FIG. 12.

natural and unashamed treatment of the method of iron-casting these things could not be bettered. We never think of comparing them with wrought work to their disadvantage, both are excellent in different categories. Ambitious modern work in cast iron most usually fails by raising the comparison with wrought iron, imitating in infinitely careful pattern-making just those effects in which to succeed is most of all to fail. The first requirement of all is appreciation of the brittle nature of the material and the fact that it is cast in a mould.

Larger balconies were often covered in and became verandas, and of these, too, a great many are left. They are, however, rapidly becoming fewer, and if record of them is not soon made it will be too late. According to Skeat the use of the name is modern; it does not occur in Johnson's Dictionary. It seems to be Spanish or Portuguese in origin and to have reached us by way of India about 1800. "What in this country [India] is called a veranda or feranda is a kind of piazza or open landing-place" (1787). Larousse agrees as to the thing having been borrowed from India, but adds "also called bow-window"! The development of these pleasant things was an English fashion.

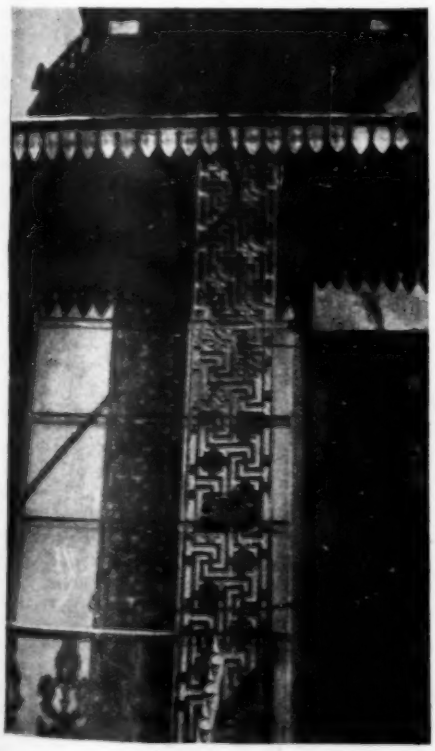


FIG. 13.

Lately, there was a dwelling near to the destroyed Devonshire House, which seemed to me altogether an admirable specimen of a London mansion, liberal and smiling. Baroness Burdett Coutts had lived here. I had long intended to draw it as an excellent example of a house with a big veranda, when a friend told me that he had been going to paint it but he found that it was already annihilated.

In the neighbourhood and away to Eaton-square and Pimlico, are still many house fronts with verandahs. At the corner of Eaton-place and Craven-street (?) is one, simple but elegant. In Park-lane are several more ambitious, and near the Marble Arch about a dozen; another group are in Bloomsbury-square. Without exception, so far as they were of customary make, they seem to be admirable, light, elegant, strong—works of intelligence. The elegance of many of these things is surprising; there is a veranda in Old Queen-street, Westminster, the slender pillars of which have a length of about 18 in. at the top, ornamented to form a sort of capital, but with very little expansion, which is a masterly piece of management. Many have standards formed of strips of open work. Figs. 13 and 14 are in my neighbourhood from houses which were once semi-suburban and not yet a century old.

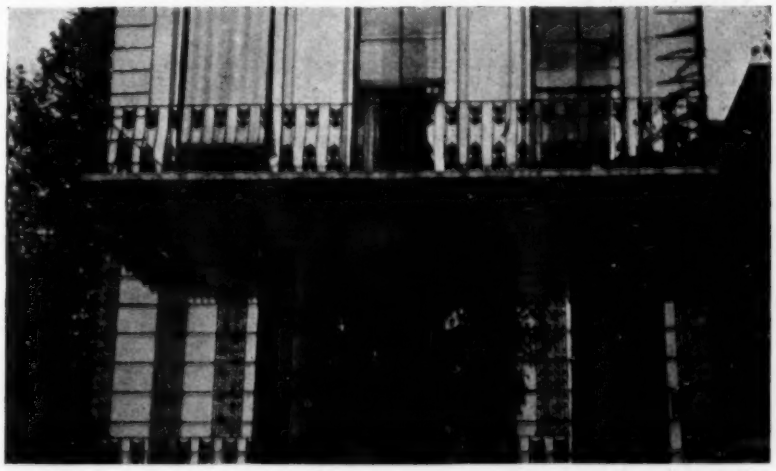


FIG. 14.

. . . . .

In a preliminary way I should like to ask a question which will be repeated next month in my concluding part. Is it not possible to reform this once large national industry on a basis of common-sense workmanship?

CONSTRUCTIONAL STEELWORK SIMPLY EXPLAINED.—VIII

BY OSCAR FABER, O.B.E., D.Sc., M.Inst.C.E., etc.

[EDITORIAL NOTE.—*This series, which will be published in book form later, is intended to present the problem in so simple a form as to be readily understood by those having no special engineering training.*]

THE simile between a loaded cable and the bending moment diagram enables us to see at a glance that a bending moment diagram for a series of concentrated loads only will be a diagram consisting only of straight lines with kinks or angles directly under the loads, since this is obviously the shape which a string would take, held at its ends, with loads suspended at these points.

It makes it equally clear that the moment diagram for any uniform distribution of load must consist of the smooth curve free from angles or straight lines, and that a bending moment diagram for a system having concentrated loads and uniform loads must consist of a series of curves with kinks or angles directly under the concentrated loads. These points have, of course, been illustrated already in the diagrams that we have already seen.

We have now sufficiently studied bending-moment diagrams in a few simple cases to have formed some ideas on the subject and to enable us to pass on with profit to the next stage in our inquiry, which concerns itself with the resistance of beams or other stiff structures to such bending moments. For this purpose, let us consider the simple cantilever (a beam fixed at one end and supported at the other) which is built into a wall at one end and carries a load W at the other.

If we consider the section AA, see Fig. 15 (*a*), at a distance of *l* from the load W, it is clear that the bending moment at this section is

$$M = Wl.$$

The question that we now have to concern ourselves with is what happens in the beam at the section AA to enable it to resist this bending moment. We will assume that the beam in question is of the steel joist section, which consists essentially of two flanges separated by a thin web. To throw more light on the condition of affairs at the section AA, let us imagine the beam cut through at this section, when a little consideration will show that the effect of the load W would be to produce rotation as shown in Fig. 15 (*b*), the rotation being about the point 1 in the bottom flange.

To bring the beam back to its original shape and position it would clearly be necessary to apply a tension T to the top flange, and it will be clear that if we pull the top flange back by means of such a tension we can restore the beam to its original form and shape, showing clearly that there was, in fact, such a tension acting in the top flange and performing this duty before we cut through the beam at this section.

Suppose now, on the contrary, we cut a V notch out of the beam from below, as shown in Fig. 15 (*c*), it is equally clear that the projecting portion of the beam will rotate about the point 2 at the upper flange unless we insert a block capable of resisting compression in the bottom flange, showing quite clearly that the bottom flange, before the notch was cut, was already performing this duty and resisting compression.

We have therefore established the fact that a bending moment in a beam is resisted by tension and compression forces acting in the flanges of the beam, and that in the case of a cantilever the upper flange is in tension and the bottom flange is in compression. This tension and compression are indicated in Fig. 15 (*d*) and may for the moment be taken as acting in the centres of the two flanges respectively and separated by a distance *d*.

It will be remembered that we have already shown that in a stable structure the moments about any point must balance. Let us now take moments about the point 1, this being where the compression flange intersects the section AA we are considering. We have here two forces producing moments, the force W at a leverage *l* in a clockwise direction, which is resisted by the tension T at a leverage *d*

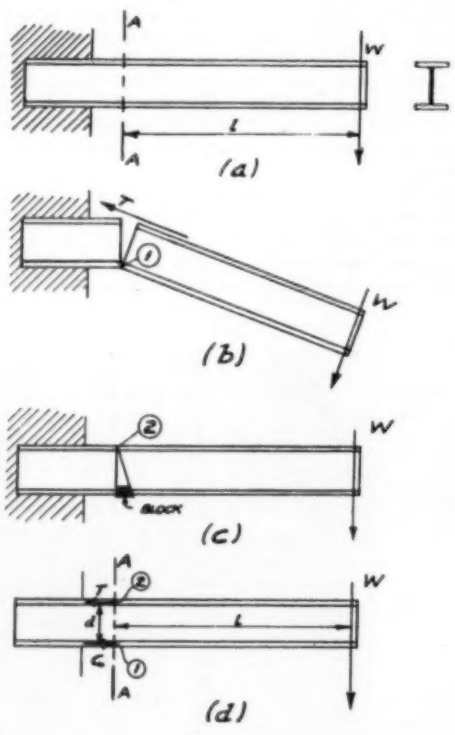


FIG. 15.

in a counter-clockwise direction. The force C obviously produces no moment about the point 1, as it has no leverage. Therefore we may write

$$T \times d = W \times l,$$

or,

$$T = \frac{Wl}{d}$$

In a similar way we can take moments about the point 2, when we find a clockwise moment, W*l*, is equated and balanced by the counter-clockwise moment C × *d*, so that

$$C = \frac{Wl}{d}$$

The following facts emerge from this investigation :—

(1) The total tension and total compression in the flanges of a beam are equal. This was, of course, deducible from first principles, since, as they are the only horizontal forces acting, as is clear from Fig. 15 (*d*), the structure would move laterally if one of these exceeded the other.

(2) The external bending moment is resisted by the moments of the internal forces, which is equal to the tension in one flange or the compression in the other flange multiplied by the distance between them. This moment is called the *resisting moment*, and we therefore see that in general the resisting moment

$$R = T \times d$$
$$= C \times d,$$

d being the distance from the centre of one flange force to the centre of the other.

This simple relationship enables us to calculate the flange forces in any beam where we know the bending moments, which we have, of course, already discussed. In other words we may put in general—

The bending moment due to the external forces is equal to the resisting moment

$$M = R$$
$$= T \times d$$
$$= C \times d$$

We have already shown how M can be calculated in most ordinary cases, and *d* will be known for any given beam, making it very easy to evaluate C or T if in addition we know the area of the flange which resists this total tension or total compression.

It is easy, of course, to go a stage further and calculate what the stress in the material comprising the flanges must be. This really comprises the essential principles in the design of ordinary beams and girders, and holds good however large and complicated the structure may be. It is just as true of the Forth Bridge as it is of the simplest girder of insignificant proportions.

Example.—A joist 12 in. deep has flanges 6 in. wide and 1 in. thick top and bottom. The joist carries a concentrated load at midspan on a span of 20 ft. Calculate what load it will carry in this way for the stress in the flanges not to exceed 7½ tons per sq. in.

The bending moment is

$$M = \frac{Wl}{4}$$
$$= \frac{W \times 240 \text{ in.}}{4}$$
$$= 60 \text{ W inch units.}$$

The safe tension or compression in the flanges is

$$T = C$$
$$= 6 \text{ sq. in.} \times 7\tfrac{1}{2} \text{ tons per sq. in.}$$
$$= 45 \text{ tons.}$$

The distance from the centre of one flange to the centre of the other is 11 in. Therefore the resisting moment is

$$R = Td$$
$$= 45 \text{ tons} \times 11 \text{ in.}$$
$$= 495 \text{ inch tons.}$$
$$M = R$$

Therefore $60\ W = 495$ inch tons.

Therefore $$W = \frac{495}{60}$$
$$= 8\tfrac{1}{4} \text{ tons.}$$

In this example it will be noticed that the span *l* is expressed as 240 in., not as 20 ft., because it is more convenient to express the depth of the joist in terms of inches than of feet. It does not matter at

all what units we work in, but it is, of course, of paramount importance that whatever units we select we should stick to them. In this case tons and inches are used throughout as the units of weight and of length respectively.

It is impossible to emphasise the necessity for the utmost care on the part of the student in maintaining the same units throughout in calculation, as probably more serious errors have been caused through failure to do this than through any lack of refinement in theories underlying calculations of this character.

If A is a cross-sectional area of the flange and f the stress in it, we can clearly write

$$T = A \times f,$$

so that the resisting moment may be written

$$R = T \times d$$
$$= A \times f \times d.$$

In other words, the resisting moment for a beam of this type is the stress times the flange area times the depth from one flange to the other. This makes it quite clear that the strength of a beam having a definite sized area of flange is directly proportional to its depth, that for a beam of a given depth the strength is directly proportional to the flange area. We shall deal next time with the resistance moment of beams of other sections, not of the joist type.

THE BUILDINGS OF BABYLON

SIR BANISTER FLETCHER, V-P.R.I.B.A., in a recent Wednesday evening lecture at the Central School of Arts and Crafts, on Babylonian, Assyrian and Persian architecture, said that the architecture of Mesopotamia differed much from the Egyptian in character, for it was vaulted and not trabeated, as was inevitable in an alluvial country which supplied clay for the making of bricks to be used in vaults, but no stone for flat beams. In the earliest or Babylonian period every city of the Chaldeans had its lofty "ziggurat" or "holy mountain," a pyramidal observatory tower with a richly decorated temple chamber on the summit, from which the astrologer-priest could study the heavenly bodies. The temple at Nimroud was erected in seven receding terraces, each dedicated to a planet and decorated symbolically in glazed bricks of a different colour. Recent excavations had unearthed ground plans, marked out by asphalt, of the Temple of Baal, and of numberless other towers, none of which, however, corresponded to the popular pictures of the Tower of Babel.

In the Assyrian period (about 1275-538 B.C.) the chief buildings were the tremendous palaces for the kings, which were raised on mighty mounds or platforms by gangs of slaves who lived and toiled in the miasmic plain below. The buildings and decorations reflected in a remarkable degree the nature of the country and the building material it supplied, as well as the social and political conditions of that age—the dominance of warlike kings and the subservience of the bond people.

The perishable brick material necessitated by the absence of stone was largely responsible for the disappearance of the buildings, for it has mostly returned to its original clay, leaving only the fine alabaster slabs. British excavations at Khorsabad had revealed the plan of the town and of the Palace of Sargon, 25 acres in extent, with its long narrow apartments suitable for roofing by brick arches. The speaker concluded with an account of the Persian art of Susa and Persepolis, and the Tabernacle and Solomon's Temple at Jerusalem.

WITH THE A.A. IN NORMANDY

By GRAHAME B. TUBBS, A.R.I.B.A.

THIS summer's A.A. excursion was quite different from its predecessors, inasmuch as it was a more leisurely affair than usual. It was, however, none the less enjoyable. We did not rush from London to Paris and thence to Madrid (where the real business started), nor were we entertained by all the architects and mayors of Holland; neither were we conducted hectically around by amiable Swedes; but we went quietly from Southampton to Caen by boat (the weather was kind), and from there we did three excursions only—to Bayeaux, Falaise and Lisieux. For the rest of the time we were left to our own devices, to laze, to sightsee, or, for those who had energy besides good intentions, to sketch.

The motor trip to Bayeaux was the first excursion, and a delightful trip it was, through the beautiful Norman countryside, as besides seeing Bayeaux, we passed an interesting partly ruined twelfth-century church at Thaon, and the charming Francis I chateau of Fontaine-Henri, with its astonishing roof, which is actually considerably higher than the building below it. Later in the same day we saw the much larger chateau of Balleroy, which was designed by Mansard. These two houses show clearly the change in outlook that occurred in the 100 years that elapsed between their erection, during which time the freedom of the early Renaissance gave place to the formality of the age of Louis XIV. The latter house is completely symmetrical, and even the village street was laid out to add to the dignity of the approach of the Castle. Unfortunately we could not see the inside of either of these chateaux, but could only admire them from the outside.

In Bayeaux itself, the chief objects of interest are the Cathedral and the famous Bayeaux Tapestry. The former is a fine eleventh- and thirteenth-century building, which gains considerably in interest by being built on a site which slopes from west to east. The architect seized on this accident to produce an extremely fine interior effect. From the west end there is a flight of steps down to the nave level, from which an impressive view of the interior is obtained, and there are further steps from the level of the nave to the chancel aisles, which give charming views looking west. The floor of the nave and chancel is, however, maintained on the same level. Looking east from the west end no one could fail to be impressed by the grandeur of the Romanesque arcade of the nave; this is particularly fine, and is happily contrasted with the more delicate thirteenth-century chevet. One beautiful mediæval window still glows in the east end, but the

Manoir de le Salamandre, Lisieux.

remaining glass is modern, and for the most part poor. The eighteenth-century pulpit, which annoys or amuses according to one's point of view, is of wood, and is surmounted by dusty wooden angels reclining on clouds which are equally wooden, but are, if possible, even more dusty. English visitors will notice with interest the tablet which commemorates the million men of the British Empire who lost their lives in the War. It is the work of Lieut.-Colonel Cart de la Fontaine and Mr. Reginald Hallward. The design is heraldic, and gold and silver have been very freely used besides other heraldic colours. The exterior of the Cathedral is good and there are two particularly fine spires at the west end.

What is even more familiar, by name, to the average English visitor, than the Cathedral, is the famous *Tapisserie de la Queen Mathilde*, which is housed in the Museum near the Cathedral. The guide books are unanimous in pointing out that it is neither a tapestry nor was it worked by Queen Mathilda, but it *is* a contemporary record of the incidents of William's dealings with Harold, made for William's half-brother, Odo, Bishop of Bayeaux, to decorate the nave of his Cathedral, which it exactly fits. It tells in direct and vivid fashion of the events that led up to the Battle of Hastings, to Harold's death, and to William's coronation at Westminster. The whole thing is interesting, firstly as being an early example of war propaganda (the point of view is, of course, entirely Norman); and secondly as an important example of Romanesque art which is of first importance to historians and to students of costume and the everyday life of the period. The pictures are worked in needlework on a strip of coarse linen, 20 in. high and 220 ft. long, and consists of a series of episodes, contained within small bands, at the top and bottom, of curious beasts and plants and of even more curious figures. It is worked in eight colours, which are used quite arbitrarily; there is no perspective, but effects of distance are attempted by colouring the parts of an object further from the eye a different tint from those nearer; thus the near leg of a horse may be green and the far leg red. Much of the drawing is vigorous, especially in the battle scenes, and some of the scenes are distinctly humorous.

On the way back to Caen, a slight detour brought the party to the village of Norry with its beautiful church, which is in effect a cathedral in miniature, the chancel having an apsidal end with aisles and radiating chapels. On the outside of the choir are curious features which look at first sight like enormous pinnacles, but which are really dove-cotes and serve as reminders of the feudal rights of the former Abbots of Ardenne.

Although it was not part of the official programme, many members of the party took advantage of one of the free days to motor over to Mont St. Michael, and were well repaid for their long drive. From the distance the island forms an unforgettable picture in which nature and art have combined to make one of the most entrancing scenes imaginable. Famous writers have vied with each other in inventing extravagant phrases to describe it, but it needs the pen of a poet to do justice to its beauties. It looks like an illustration of a fairy palace from some Mediæval romance, and would make a fitting background for "The Romance of the Rose" or to "Aucassin and Nicolette."

Its character is given by the monastery and church which crown it, rather than by its fortifications, and consequently the military aspect is not so pronounced as in some mediæval towns, such as Carcassonne and Les Beaux. Nevertheless, it was an impregnable fortress which resisted many desperate assaults, both French and English.

One of the journeys was broken for a few minutes at the little town of Dives, which was the starting place of William and his 250,000 companions at arms when they set out to invade England. The names of the principal soldiers are inscribed over the door of the interesting village church.

Falaise, another town associated with William the Conqueror, was the object of the second visit. It was here that Duke Robert the Devil first met Arlette, the tanner's daughter, who afterwards became William's mother, and the well where they met is still shown to the credulous. The church of Ste. Gervaise is interesting but has been much restored. It is remarkable for the very strong inclination that the chancel makes to the south, and for the fact that the southern arcade of the nave is Romanesque, while that of the north is of the thirteenth century. The Church of the Trinity has an interesting early sixteenth-century porch in which Gothic design and Renaissance detail struggle hard for the upper hand. The castle and keep are notable both for their impressiveness and for their historical associations (although William was *not* born in the little room in the keep): few towns have had so chequered a military career as Falaise, which is perhaps only appropriate for the birthplace of "the Conqueror."

The third excursion was to Lisieux, which is justly celebrated for its streets of fine old half-timbered houses, which English visitors can hardly fail to compare with the "Rows" of Chester. The best of these houses are in the Rue aux Fevres, the Rue de la Paix, and the Rue Bouchiers. In the first-named street, one house dates from the thirteenth century, but most are 200 or 300 years later. One richly carved house is known as the House of the Salamandre, as it dates from Francis I's reign, and bears his badge. As in contemporary English buildings, the upper stories project beyond the lower, and are supported by carved brackets, and the in-filling between the timber frame is often of "herring-bone" brickwork. In the narrow Rue de la Paix, the upper stories nearly touch across the street, and look for all the world like old men nodding on each side of the ingle-nook of the village inn. The gable ends are sometimes finished in the characteristic Norman fashion where the roofs project further beyond the face of the gable at the top than at the bottom, and are supported by curved struts and brackets. This feature has been copied with little understanding and with dreadful results in the modern villas at the seaside resorts along the coast.

Lisieux Cathedral, which claims the distinction of being the first Gothic church in Normandy, is extremely interesting, as it shows its style's evolution from Romanesque. It is contemporary with Canterbury Cathedral, and is even possibly by the same architect, William of Sens. The interior strikes one as being not entirely successful, but as being, as in fact it was, experimental and tentative.

Both from the historical and architectural point of view Caen is full of interest to English people. It was the favourite residence of William the Conqueror and of his wife, and here they both found their last resting-place. It was here also that William and Mathilda carried out the penance imposed on them by the Pope for having married although they were first cousins. They both had to carry out some special act of service to the Church, and the building and endowing of the *Abbaye aux Hommes* by William and the *Abbaye aux Dames* by Mathilda were the results. St. Etienne, or the *Abbaye aux Hommes*, was started just before William set out to conquer England, and was finished in 1077. As we see the church to-day, little of William's original work remains; the west front, which is rather bald and uninteresting, was built in 1090, and the aisle vaulting was added at the same date. The nave was not vaulted until 1160, when the triforium was also added. The choir and the very fine spires are early thirteenth-century work.

The Church of the Trinity, or *Abbaye aux Dames*, was begun by Mathilda in 1062 and was dedicated with great pomp in 1066, when her little daughter was admitted to the convent as a nun. As is appropriate, the general effect of the interior is of a much lighter and more feminine character than in St. Etienne. The chancel is completely cut off from the nave and has to be approached through the eighteenth-century cloisters of the Hotel-Dieu. It was here that the Queen was buried and her tomb stands before the altar, but the inscribed marble slab is all that remains of the original. The lettering of this inscription is surprisingly Roman in character, as also are some of the capitals in the little crypt, and serve to show how the Classic tradition lingered on the Continent through the Dark Ages. Perhaps it would have been stronger in England had the Roman conquest been more thorough, and Scotland and Wales had also been brought under the Imperial rule. In that case the country could have shown a more united front to resist the invaders from Scandinavia who plunged the country into chaos and barbarism. A fact that should not be forgotten is that the Normans were also Norsemen, and of the same stock as the previous invaders of England, and this close tie of blood no doubt explains their rapid amalgamation with the Saxons after the Conquest. But to return to the Church of the Trinity after this digression; the vaulting of the nave marks a very interesting period of development in the vault, as it is of the sexpartite type, that is, each bay of the vault was divided into six by the addition of an arch across the church to support the crown of the vault. This expedient was useful in giving confidence to the early vault builders, but it was not a particularly pleasant form, and was discarded.

The principal church of Caen is St. Pierre, which is notable for its superb thirteenth-century spire, which is now being repaired, and for the very curious western chapel which was built in 1521 by the Caen architect, Hector Sohier. Like the porch of the Church of La Trinité at Falaise, and in the Church of Saint Gironimo at Lisbon, it shows how Renaissance detail was applied to the Gothic design. The window tracery is round-headed, the pinnacles and gargoyles and the canopies to the statues are based on Roman candelabra and the pierced parapet is of arabesque design. Nevertheless, the general effect is unmistakably Gothic. Inside the chapel the vaulting is treated equally freely, but is not at all successful and might have been designed by a sugar-baker rather than an architect.

One of the most interesting features of Caen are the very fine Francis I houses that still remain in the Rue Ste. Jean. These were built during one of Caen's prosperous periods by the great Protestant merchant princes who flourished at the beginning of the sixteenth century. The Hotel de la Mounain was built by Etienne Duval, one of the greatest merchants of the day, and the Hotel d'Escoville and the Hotel de Than are interesting examples of the large early Renaissance town houses. In the same district there are many fascinating little courts and fine half-timbered houses, as well as many good examples of houses built in the eighteenth century.

A Celebration Dinner.

A number of leading architects from different parts of the country recently gave a celebration dinner to the partners of Messrs. W. H. Smith & Son, and also to their architect, Mr. F. C. Bayliss, F.R.I.B.A. The partners present were: Lord Hambleden, Mr. C. H. St. J. Hornby, Mr. A. D. Power, and Sir William Acland. Several well-known architects were present at the function. The principal ceremony was the presentation of some silver to the partners, made by the architects. A piece of silver was also presented to Mr. F. C. Bayliss, who for many years has been the architect to Messrs. W. H. Smith & Son, and has, in co-operation with architects all over the country, produced shops and buildings for the firm in every quarter of the kingdom.

SPECIFICATIONS.—XLI

BY H. V. MILNES EMERSON, A.R.I.B.A.

HEATING ENGINEERS.—*Continued.*

IN a building continuously heated to a certain temperature, the amount of heat necessary to be supplied per hour depends upon the amount of heat lost through conduction when the heating is maintained at the desired temperature. If the building, maintained at a temperature of, say, 65 deg., loses 200,000 B.T.U. per hour through conduction, the heating system must be capable of supplying a larger amount of heat in order to warm the structure rapidly and at the same time to provide for the loss of 200,000 B.T.U. per hour. If only the bare necessary quantity of heat is supplied, the rise in temperature in a building heated from cold will be slow, as the whole building must be warmed before the temperature can be raised.

For a building or room which is only heated during the day and not during the night, this excess is 30 per cent., but in a building that is only heated occasionally—such as a hall or a church—50 per cent. or more excess should be provided, according to the rapidity with which it is to be heated.

The amount of heat necessary to be supplied to a building can be ascertained when the conditions required to be fulfilled are known. The conditions comprise the character, surface, and exposure of the outside walls, windows, roofs and floor, the amount of air passing in and out of the room or building per hour, the way the building is to be used, and the number of persons in the building or rooms. When estimating the heat lost from the room or building, all these factors should be separately allowed for in the calculations.

In the table A will be found the B.T.U.'s lost per hour for the degree of difference between the internal and external temperatures for the various surfaces of the building, assuming the outer air is still and walls, windows, &c., face south. If the walls, &c., face other points of the compass, or the building is very exposed, or is not to be continuously warmed, percentages must be added to meet the changed conditions.

To ascertain the loss of heat per hour from a room, measure the square feet of wall surface, window surface, &c., and multiply by the number of B.T.U. lost by each square foot per hour. Add the loss by each surface together and the result will be the total loss of heat by transmission or conduction. This result is, in most cases, sufficient to allow for one change of air per hour due to leakage only.

If the building or room is to be occupied by a number of persons, it is not sufficient to rely on the leakage of air for complete ventilation. A suitable quantity of fresh air per person per hour must be provided, as shown in the following table. Multiply the number of persons by the amount of fresh air required per hour and this will give the total amount of air per hour. Multiply this amount of fresh air by the B.T.U. required to warm this air to the required temperature and add to same the loss of heat by transmission through walls, &c. The total is the amount of heat to be applied to the building or room per hour, and is the total power required from the boiler, adding a margin to allow for loss of heat from the pipes. To warm 1,000 cubic feet of air from 32 deg. to 60 deg. requires about 500 B.T.U.

	Cubic feet per head per hour
Hospitals and Sanatoria	5,000
Best Ventilation	3,600
Good	1,800
Fair	1,000
Bad	below 1,000
Minimum in any circumstances	600

In order to maintain a given mean temperature in a radiator it is necessary to ensure that an adequate quantity of water at a proper temperature is circulated through it, and this can be obtained provided the boiler has a suitable power and the size and run of the pipes are correctly designed. All parts of a heating apparatus depend on one another, the size and arrangement of pipes, the heating surface of the radiators, the power of the boiler, and the efficiency of the chimney.

The mean temperature of the flow and return is usually taken as the temperature of the radiators. The average temperature for a radiator is as follows:—

In cold weather, 160 deg. (hot).
In moderate weather, 140 deg. (medium).
In mild weather, 120 deg. (lukewarm).

The highest temperature in any radiator on the low-pressure system is about 200 deg. F., and the highest ordinary temperature in a very hot radiator is about 180 deg. It is not desirable to have radiators very hot as they make the air close and stuffy.

In a properly designed apparatus all radiators should be at the same temperature, and the amount of heat given from all exposed pipes and radiators in a room added together should be at least equal to the amount of heat required.

To ascertain the size of radiators required for a room for which the necessary B.T.U. are known, calculate the B.T.U. given off by the exposed pipes, subtract this amount from the total heat required and divide the remainder by the emission per square foot at the desired temperature (see table B, last week's issue). The dividend is the number of square feet of radiation required from the radiators.

Paint should be thin and nearly free from oil. A black, dull surface will give the highest efficiency, whilst a thick paint or enamel gives the lowest efficiency.

Pipes when correctly designed will give an even temperature in all the radiators. The size of pipe required to supply a radiator having a given heat emission depends on the force circulating the water through the system, and this varies in different parts of the apparatus, according to the height of the various radiators above the boiler. To ensure that all radiators receive their proper flow of water requires a considerable amount of calculation, but the following table will give, fairly accurately, the required size of pipe for normal systems.

To find the size of pipe to carry a given quantity of heat, take the total distance the water has to travel from the boiler and back

TABLE A.—HEAT LOST BY CONDUCTION.

Kind of Surface.	Loss of heat per sq. ft. per hour for 1° F. difference	Loss of heat per sq. ft. per hour for 30°F.difference
WINDOWS:—	B.T.U.	B.T.U.
Single window	1·08	32·4
Double „	·45	13·5
Skylight, single	1·04	31·2
„ double	·48	14·4
WALLS:—		
Brickwork, 4½ in. plastered inside	·53	16·0
„ 9 in. „ „	·41	12·3
„ 14 in. „ „	·33	9·8
„ 18 in. „ „	·28	8·4
„ 21 in. „ „	·25	7·6
„ 24 in. „ „	·23	6·9
„ 4½ in. lined with wood ⅜ in. thick	·29	8·8
„ 9 in. „ „	·25	7·6
„ 14 in. „ „	·22	6·5
„ 4½ in. with 2 in. air space and 4½ in. brick wall inside	·33	9·8
„ 9 in. „ „	·29	8·8
„ 14 in. „ „	·25	7·6
„ 18 in. „ „	·22	6·5
„ 21 in. „ „	·21	6·3
Sandstone, 12 in.	·43	12·9
„ 16 in.	·37	11·1
„ 20 in.	·32	9·6
„ 24 in.	·29	8·1
„ 30 in.	·25	7·5
Limestone 12 in.	·47	14·2
„ 16 in.	·42	12·5
(Portland 20 in.	·37	11·1
Stone) 24 in.	·34	10·1
„ 30 in.	·29	8·8
Concrete 4 in.	·63	18·9
„ 6 in.	·57	17·1
„ 8 in.	·53	15·9
„ 10 in.	·49	14·7
„ 12 in.	·45	13·5
Lath and plaster only	·40	12·0

Kind of Surface.	Lost of heat per sq. ft. per hour for 1° F. difference	Loss of heat per sq. ft. per hour for 30°F.difference
	B.T.U.	B.T.U.
FLOORS AND CEILING:—		
Concrete floor with wood blocks and plastered ceiling 5 in.	·21	6·3
„ „ „ „ 7 in.	·19	5·7
„ „ „ „ 9 in.	·18	5·4
„ „ „ „ 11 in.	·17	5·1
„ „ „ „ 13 in.	·16	4·8
Wood joists, boarded floor and plastered ceiling, with cold air above	·17	5·1
„ „ „ „ below	·07	2·1
Wood floor, air space under and surface concrete	·05	1·5
Wood floor with pugging, lath and plaster ceiling with cold air above	·11	3·3
„ „ „ „ below	·06	1·8
ROOFS:—		
Tiled roof, unboarded	·99	29·7
Tiled roof with rafters boarded one side	·35	10·5
„ „ „ „ both sides	·18	5·4
Flat roof, rafters and boarding covered lead and lath and plastered ceiling	·17	5·1
Flat roof, concrete and asphalte 5 in.	·30	9·0
„ „ „ „ 12 in.	·20	6·0

ADDITIONAL PERCENTAGES:—

For every wall or window facing North add 20 per cent.
„ „ „ „ East add 15 per cent.
„ „ „ „ West add 5 per cent.
For building or room heated during the day only 15 per cent.
For a corner room 10 per cent.
For buildings heated during the week end, add 30 to 75 per cent., according to time taken to attain maximum temperature. (To attain maximum temperature in 12 hours, add 50 per cent.)

again, through such pipe, and divide by the height above the centre of the boiler to the centre of the first or lowest radiator served by the pipe. The resultant is given in the first column of the table and the approximate size of pipe necessary for the required square feet of heating surface will be found along that line.

Thus, if the travel is 400 ft. and the height of the centre of the lowest radiator 15 ft. above the centre of boiler, and the radiating surface to be supplied by that pipe is 200 sq. ft., then 400 ft. divided by 15 will equal 30 in the first column. The nearest heating surface along the line is 280 sq. ft., and the size pipe required is 2 in.

This method only applies to the two-pipe system, and the table is calculated for a difference of 30 deg. F. in temperature between the flow and return. For a difference of 40 deg. the increase would be 50 per cent., and for 50 deg. the increase would be 100 per cent. in the capacity of the pipe. Complicated installations containing many branches and radiators must be calculated by a more accurate method.

The square feet of radiation in table B multiplied by 144 will give the B.T.U.

TABLE B.—SIZES OF PIPES.

LOW PRESSURE HOT WATER SYSTEM WITH A DIFFERENCE OF 30° F. BETWEEN FLOW AND RETURN

Col. 1. *Travel* Height.	Diameter of Pipe.							
	½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	2½ in.	3 in.
	Square feet of heating surface at 165° F.							
2	37	111	236	417	660	1,400	2,410	3,780
3	29	86	186	325	525	1,115	1,930	3,220
4	25	73	156	278	444	938	1,650	2,610
5	22	64	139	243	389	820	1,440	2,260
6	20	58	126	218	349	746	1,290	2,060
7	18	52	114	195	320	666	1,170	1,850
10	15	42	93	160	260	549	966	1,530
12	13	37	81	139	229	479	855	1,350
17	11	31	69	119	192	407	723	1,142
20	10	27	61	107	174	368	645	1,030
25	9	23	53	93	151	320	570	904
30	8	19	44	82	134	280	510	800
40	—	17	38	69	115	237	431	677
50	—	14	34	60	99	205	375	598
60	—	12	29	53	87	181	326	521
70	—	11	27	48	80	165	299	480
80	—	—	24	44	73	149	271	438
100	—	—	21	39	65	133	243	389
125	—	—	19	34	56	116	208	335
166	—	—	15	28	47	97	174	278
200	—	—	14	25	42	87	156	250

The surfaces required in square feet of radiation for various temperatures in buildings are as follows—

Temperature required. (Outer air taken at 32° F.)	Square feet of radiating surface required for each 1,000 cubic feet of space.	Rooms and buildings to be heated (suitable temperatures).
55° F.	13	Workshops, garages, stores, &c.
58° F.	16	Churches, halls, &c. (empty).
60° F.	18	Schools, offices, banks, &c.
60° F.	18	Living rooms (without open fires).
62° F.	20	
68° F.	25	Entrance halls (to obtain 58° to 60°) and bathrooms.
80° F.	38	Drying rooms.
90° F.	68	
100° F.	118	
110° F.	200	
120° F.	300	

When testing heating installations, the usual temperature required is 60° F. inside building when temperature is 32° F. outside. In the following table will be found the equivalent temperatures :—

External air.	Internal temperature required.	External air.	Internal temperature required.
32° F.	60° F.	42° F.	66½° F.
34°	62°	44°	67°
36°	63¼°	46°	68°
38°	64½°	48°	69°
40°	65½°	50°	69¾°

GARDEN CITIES AND TOWN-PLANNING CONFERENCE

THE Autumn Conference of the Council of the Garden Cities and Town-Planning Association was held at Welwyn Garden City recently. The Chairman, Lieut.-Col. F. E. Fremantle, M.P., presided, and Capt. R. L. Reiss gave an address on the present housing position and outlined a future policy. Capt. Reiss said it was clear that, in the current year, not more than about 60,000 houses would be built in the country for letting, and as the tendency now was for the supply of houses for sale to begin to dry up, it would appear that the production of working-class houses would about meet the annual demands or possibly slightly exceed them. So far as slum clearance and reconstruction were concerned, the progress with regard to these was practically negligible in proportion to the size of the problem.

In considering the problem, the country had to face the following facts:—(*a*) There was an enormous amount of overcrowding in working-class districts in towns of all sizes; (*b*) to deal with the problem, houses had got to be provided which could be let at weekly rents, and that the weekly rents must be such that the working classes could afford to pay—at most 12s. 6d. per week; (*c*) the cost of building is showing no signs of decrease; on the contrary, there is a tendency for prices to harden.

The average cost of houses let under contract during August was £434 for the non-parlour and £499 for the parlour houses. These figures did not include cost of land, road-making, sewering, etc. Interest on loans, whether from the Public Works Loan Board or other sources, was higher now than it was a year ago, so that it was obvious houses could not be built without subsidy at rents which the bulk of the working classes could afford to pay. It was essential for the Association to press for the continuation of the existing Acts for a further period of time. The main objection to this was, obviously, whether the country could afford it; but it was contended that the money was merely changing hands and was used in producing something of direct tangible value. Indirectly, there would be saving in costs due to bad health, and there was also the further consideration as to whether the State could not be considered as representing the people living in the country, and that the only real alternative to continuing the subsidy was to continue bad housing.

LAW REPORTS

Claim for Carriage of Bricks: Alleged Missing Lorry Load.

In the Mayor's and City of London Court, recently, before the Common Serjeant, Sir H. F. Dickens, K.C., a claim was made by Mr. S. Clifford, haulage contractor, 34, Humbolt-road, Hammersmith, and Clifford House, Kensington Court, against the Rapid Transportation Ltd., shipping and forwarding agents, 31, Budge Row, for £59 5s. 9d., in respect of the cartage of bricks for the defendants, part of which was paid into Court.

Mr. Hoppe was counsel for the plaintiff, and Mr. Chaytor represented the defendants.

According to the plaintiff's case, in April last the plaintiff gave a quotation for carting bricks from a Wandsworth wharf to Coulsdon and Epsom at 12s. 3d. per 1,000, and Wimbledon at 10s. per 1,000, which was accepted. No dispute arose over the quantity of bricks carted except as to one load of 2,200 which were to be carted by the plaintiff from the wharf to Coulsdon on April 27, on to the building site of Messrs. Richardson & Jones, builders. The defendants denied that the bricks were delivered. The plaintiff said they had been delivered, and a docket obtained by their lorry driver duly signed. The defendants stated that the docket was not signed by anyone in their employment, and disputed the plaintiff's right to charge cartage, £1 6s. 11d., in respect of those bricks, and counter-claimed for the value of the bricks, 8 guineas, from the plaintiff. The second part of the plaintiff's claim, which was also disputed, was in respect of a charge made for the delays of their vehicles, charging for 37 hours at 7s. 6d. per hour.

The Common Serjeant said he was satisfied that the 2,200 bricks had been delivered by the plaintiff on the building site at Coulsdon, and he also thought that the plaintiff was entitled to charge a sum of 5s. per hour for the delay of their lorries. He gave judgment for the plaintiff for £8 6s. with costs.

Claim for Professional Services.

At Williton County Court, Somerset, recently, Mr. John Henry Beart-Foss, brought an action against Mr. Ernest Boobier, of Winsors Farm, Holford, to recover 8 guineas, fees for preparing plans for alterations to a barn on a farm. Defendant said he asked plaintiff, who had come from London to spend a holiday at the farm, to draw him a pencil sketch of the proposed alterations. He agreed to pay the cost of the drawing materials, but denied that he also undertook to pay the plaintiff for getting out the plans, though he admitted subsequently taking them to a Bridgwater builder.

His Honour Judge the Hon. W. B. Lindley remarked that if a person asked a professional man to do work there was an implied promise that it would be paid for unless there had been an agreement that it was to be done for nothing. In these circumstances he gave judgment for plaintiff, with costs.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting!—ED.

Ownership of Septic Tanks.

[REPLY TO "COUNTRY," OCTOBER 22.]

SIR,—It is presumed that "B" has erected and is bound to maintain the fence between "A" and "B," under agreement with the vendor. "B" could not have erected the fence over the septic tank and along the effluent gulley, for these appear to be placed on the boundary line between "A" and "B," so he erected the fence so as to exclude the tank and effluent gulley as shown in the sketch, thereby throwing into "A's" land a portion of his own. This fact does not enable "A" to set up any right of ownership in the tank and effluent gulley, for they are in the joint tenancy of both "A" and "B." Nor can a charge be made by way of a nominal rent as suggested. There is no question of "B" acquiring an easement therein either by implication of law or by prescription; for it is obvious from the particulars given, and from the fact that both "A" and "B" both drain into the same tank, they are joint tenants and therefore an easement by implied grant already exists.

"A" and "B" are joint owners and users, and must maintain and keep in repair the tank, &c., referred to. LEGAL.

Contract Question.

[REPLIES TO "DOUBTFUL," OCTOBER 22.]

SIR,—The usual maintenance clause, for faulty workmanship or materials, referred to by "Doubtful," is in most cases included in the conditions of contract where the contractor contracts to supply both labour and materials for the work contemplated. In such cases the contractor's obligation under the clause, in general, extends to defects discovered within the time fixed for the maintenance period; although the cause of the defects is not discovered until after the expiration of that period.

When, therefore, as in this case, the contractor is paid a fixed percentage on the cost of labour and material, as and by way of remuneration under the contract, so much depends on the nature of the contract that a perusal of it would be necessary to ensure an adequate reply. If it can be shown that the contractor is, under the contract, entirely responsible for the quality of the materials of which the windows and doors are made, and that they are not in accordance with the contract specification, then, under the maintenance clause, he is under the obligation to make good the defects at his own expense. If, however, the materials for the windows and doors are in accordance with the contract specification, or are supplied, for instance, by a sub-contractor named in the contract specification and approved by the architect, then it would appear the contractor is not liable for the defects, and is entitled to the cost of the labour in putting them right, together with the fixed percentage thereon, as provided by the contract. C.

SIR,—I am of opinion that, legally, the work cannot be charged for, as the contractor, knowing that he would have to sign a contract containing a maintenance clause, should have allowed for this when estimating the percentage profit he would require as his prime cost. It would appear to me that there is no doubt whatever that, under these circumstances, it is the builder's duty to put this right as early as possible, and in such a manner as to cause the occupier a minimum of inconvenience.

MEMBER OF A.A.S.T.A.

SIR,—This is clearly a case for discretion. The architect must administer the contract in a fair and unbiassed manner, and if he is satisfied that the working of the joinery is no more than normal and not the fault of defective material or workmanship, then he must allow the work of easing as part of the cost of the contract.

BALANCE.

Sand Lime Bricks.

[REPLIES TO "B," OCTOBER 22.]

SIR,—Sand lime bricks have been made by us for the past twenty years, and are quite satisfactory for most classes of buildings. They can be used with lime or cement mortar, and are also good for plasterer's work and stucco rendering, but the plasterer should be instructed to damp the surfaces with a brush or otherwise before applying his material in the summer or dry weather. The bricks are now made with a goodly proportion of grooved ones, and there need be no fear of defective plastering if the work is carried out in a reasonably workmanlike manner. D. HUGHES.

SIR,—Provided the bricks are thoroughly mature they may be safely used for all purposes to which a burnt clay brick might be applied. A green brick will cause excessive and prolonged sweating. There is no objection to the use of cement mortar in conjunction with this class of brick. A. B.

Establishment Charges.

[REPLY TO "DOUBTFUL," OCTOBER 22.]

SIR,—A somewhat contentious question has been raised. I have known cases where the National Health Insurance has been allowed, but I think that there is little doubt that it is the usual practice to include items for National Health Insurance and Employers' Liability in the percentage allowed for establishment charges and profit. MEMBER OF A.A.S.T.A.

Fall of Drain.

SIR,—Would you kindly give me your opinion upon the following:—A main drain receiving the soil drainage only of ten workmen's dwellings is 240 ft. in length and consists of 50 ft. of 6 in. pipes and 190 ft. of 4 in. diameter pipes; these pipes are laid with an equal gradient throughout, but the fall is only three-quarters of an inch in 10 ft., or, in other words, the 240 ft. length of drain has a total fall of about 1 ft. 5 in. Will you please state whether the fall given is sufficient and whether such drain will function satisfactorily? C. H. BARBER.

Hinges for Concealed Door.

[REPLY TO "SCOT," OCTOBER 29.]

SIR,—I take it that your correspondent refers to what is generally known as a jib door, or one which opens from a wall, repeating its treatment so as not to be in evidence when shut. In a panelled room this is generally contrived to occupy one panel, the mouldings of which conceal all gaps as far as possible. In such a case it is generally possible to design the mouldings with a bead member exactly the same size as the roll of an ordinary pair of butts, which can then be used for hanging. Where the wall surface is plain, or where it is not desired to tie the design of the moulding by adopting a particular form of bead, the butts would, of course, "give away" the position of the door, and it is then best to use a pivot hinge into the floor and head. In either case the stiles, frames, cut ends of skirting and dado should be scribed to a segmental curve with centre in all cases struck from the centre of the pivot of whatever form of hinge is used. By this means a perfectly tight joint all round can be obtained at the same time as easy movement of the fitting. Where a lock is desired it is sometimes possible to embody rosettes into the design of the panelling, into one of which the keyhole can be worked unobtrusively, but this is verging on the "faddy," and in most cases the jib door is designed merely with the object of disturbing as little as possible the even flow of the decorative scheme of the room.

KING CHARLES.

PRESERVING WATERLOO BRIDGE

BEFORE the Royal Commission on Cross-River Traffic on Tuesday last, Sir Alexander Gibb, civil engineer, was asked to express his views on the following specific questions, assuming the desirability of preserving Rennie's bridge, but taking into account its present damaged condition:—

(1) Does he think it essential that the existing bridge should be entirely taken down and rebuilt?

(2) If not, does he consider that any of the existing piers and arches should be taken down and reconstructed? If so, how many, and which?

(3) Does he consider that those piers, if any, which do not require to be taken down can be supplied with new foundations and restored to a satisfactory condition by underpinning, or any other method?

(4) If underpinning is practicable, would he advise that it should be carried out (*a*) by the "free air" open cofferdam method, or (*b*) under "compressed air," bearing in mind there should be as little interference as possible with the navigation of the river whilst the work is in progress, that no unnecessary expense should be incurred, and that no undue risks should be taken; (*c*) can he express any opinion as to the depth to which the new foundations should be carried below Ordnance Datum?

(5) Can he express any opinion as to how the operations (*a*) of taking down and rebuilding the existing bridge and (*b*) of restoring it by underpinning or other methods would compare in point of cost and of time?

The following conclusions were set forth by Sir A. Gibb, in reply:—

(1) That he does not consider it essential that the existing bridge should be entirely taken down and rebuilt.

(2) That he does consider it essential that Pier 4 and its adjacent arches should be taken down and rebuilt. With regard to the other piers and arches, although, in his opinion, it is not absolutely essential from a purely engineering point of view that any of them should be taken down, yet, even from the engineering point of view and certainly from every other point of view, he considers it both desirable and expedient that Piers Nos. 3, 5 and 6, and the arches supported by them, should also be taken down and rebuilt.

(3) That he considers the piers which are not taken down can be supplied with new foundations and restored to a satisfactory condition by underpinning and otherwise.

(4) (*a*) and (*b*) That he considers the underpinning should be carried out by the "free air" open cofferdam method rather than under "compressed air." He sees no necessity for any greater obstruction to river traffic with the "free air" method than with the "compressed air" one.

(*c*) That he considers it would be reasonable and satisfactory to carry the foundations of Piers 3, 4, 5, 6 and 7 down to a depth of 35 ft. below Ordnance Datum. As regards Piers 1, 2 and 8, he considers that further investigation should be made, as it may eventually be found feasible to limit considerably the remedial work required on these piers.

(5) That he is not in a position, without an exhaustive examination of the designs and quantities, to give a reliable and definite estimate of the comparative costs of the two alternative methods under reference in (*a*) and (*b*); and, in the circumstances, even the most carefully considered estimates must necessarily have an element of dubiety. He is, however, definitely of the opinion that restoration by the methods suggested in his answers Nos. 2 and 3 would be less costly and take less time than the demolition and rebuilding of the whole bridge.

The witness, replying to questions, said that when he spoke of restoring piers which were not taken down by underpinning and "otherwise," he meant that it might not be necessary to carry out underpinning completely, but that it might be possible by less drastic methods to provide the necessary stability.

THE BUILDING TRADE

BUILDING CONTRACTS

By W. T. CRESWELL, Barrister-at-Law; Lic.R.I.B.A.; Associate (late Fellow) Surveyors' Institution; Author of "The Law Relating to Building and Building Contracts."

RETENTION MONIES.—(1).

Interim Certificates.

Most building contracts provide that "interim certificates" shall be given by the architect for payment from time to time by the employer to the contractor, up to a certain percentage of the value of the labour and materials already supplied and fixed in the building. And sometimes provision is made also for a percentage of the value of the materials or plant on the site at the time to be included.

"Interim," or "progress," certificates have been defined as being mere statements of fact as to what is the weight and the contract price of the materials actually delivered on the site at the time of certifying and including the value of the labour on the contract work executed (see Tharsis Sulphur and Copper Co. *v.* McElroy & Sons (1878; 3 A.C. 1040).

Once the architect has given an original interim or progress certificate for payment to the contractor it cannot be withdrawn by him.

In all cases there remains in the hands of the employer a certain percentage or balance which may be regarded as an indemnity held by him for the due completion of the work by the contractor and to meet any compensation which may become due from the contractor for delay in completion, or for the remedying of defects in the building as legitimately due. Such balance is usually termed "retention money." It is at the time any interim certificate is given the difference between the amount of the interim payments (including this last certified) and the whole price of the labour and materials supplied up to date. It is money that has been earned but under the contract is not yet payable, and the amount stated in any interim certificate is subject to revision at the settlement of the final account.

In West Yorkshire Bank, Ltd. *v.* Isherwood Brothers, Ltd. (1912; 28 T.L.R. 593)—where the work done by the contractors was to be measured monthly and 80 per cent. of the value of the work executed to be paid on the engineer's monthly certificate; and further, on the whole of the works being certified as completed, a further 15 per cent. was to be paid, the balance of 5 per cent. being payable within six months after the works were certified by the engineer to be completed—it was held that the whole 20 per cent. was retention money. Bankes J. said: "He did not think the word retention could apply to any money which had not become due . . . under the contract the amount of work done was to be ascertained each month and the contractor was to be paid each month, less 20 per cent., so that the whole amount became due each month, but as to part of it payment was postponed."

Completed Certificate and Maintenance.

Usually half the retention money held by the employer is made payable on completion of the work by means of a "completion certificate," the remaining half being held until such time as the contract determines, which is usually at the end of the maintenance period referred to, or until such time as the architect grants the "final certificate" or certificate of satisfaction. If this certificate of satisfaction is made a condition precedent to payment, it has the effect of deferring payment to the contractor and extending the maintenance period until such time as the architect decides to certify the actual completion of the work, which thus causes unnecessary delay in very many cases. The final certificate is that which is given by the architect on the completion of the work to his satisfaction, and on it the balance due to the contractor is payable.

In Cooper *v.* Uttoxeter Burial Board (1864; 11 L.T. 565) there was a contract for building work to be executed to the entire satisfaction of the architect, payments to be made to the contractor, from time to time, as the work proceeded, and the balance on the final certificate of the architect. The contractor duly received payments on account during the progress of the work, but as certain parts of the work had not been done in a "sound and workmanlike manner," the final certificate was withheld. The contractor sought to have it declared that this withholding of the final certificate amounted to fraud; but it was held that it was not a fraud.

In Coleman *v.* Gittins (1884; 1 T.L.R. 8) the final balance of a building contract was not to be paid until the architect had given his final certificate. The architect had by letter expressed his satisfaction with the work, but the final certificate was not given until more than a year after completion. Another clause of the contract provided that only 80 per cent. of the value of the work done was to be paid as the work proceeded, and the balance in two months "after the architect shall have expressed his satisfaction" with the work as completed. It was held that the intention of the parties was that the satisfaction of the architect was to be expressed in his final certificate, and that the final balance was not payable till then.

Prolonged Retention.

From the foregoing it will be gathered that since, in large contracts where large sums are involved, there may be proportionately large amounts of retention money retained by the employer, and that if this retention is arbitrarily exercised by the architect for any insufficient cause, or for an unreasonable time, there may be, and usually is, great hardship inflicted on the contractor.

Often the retention is due to delay in determining the amount of the final account, because of dispute regarding "extras and omissions" which are "variations" of the contract and affect the final amount payable. In these matters it should be borne in mind that in all contracts there are two parties to the contract, viz., the employer and the contractor. The architect is merely the agent of the employer for the purposes of the contract in question. If, therefore, a contractor enters into a contract without due thought and advice as to what it may entail, he is (to put it colloquially) "asking for trouble." There are, however, remedies to alleviate his distress, which we shall discuss later.

Metropolitan Water Board Report.

At a meeting of the Metropolitan Water Board last Friday, the Finance Committee's report showed that, on the estimated expenditure on revenue and capital accounts for the year ended March 31 last an excess had been incurred, under four heads, amounting to £1,008. Under other heads, however, the expenditure was £183,377 less than the estimate, showing a saving on balance of £182,369. The Board formally approved excess votes for the £1,008. The total estimated expenditure concerned was £3,113,350.

A most important step in the Company's development was the opening by H.M. The King in June, 1925, of the Queen Mary Reservoir at Littleton. This reservoir can hold 6,750 million gallons of water, for which an additional pumping station at Kempton Park has just been commenced. The full report may be obtained from the Board's Publication Agents, Messrs. P. S. King & Son, Ltd., 2 & 4, Great Smith-street, Westminster, S.W., price 5s.

WORKMEN'S COMPENSATION

PAYMENTS TO DEPENDANTS.

An important decision has been given by the House of Lords under the Workmen's Compensation Acts, 1906 and 1923, in the recent case Clement *v.* D. Davis & Sons, Ltd., which is reported in the *Times* for October 29. The point raised, shortly stated, was whether, where a man has been injured before the amending Act of 1923 came into force, that is before January 1, 1924, and has received weekly payments and then dies, under the First Schedule paragraph (1) (*a*) (i) of the Act of 1906 the sums so paid shall be deducted from the sums due to his dependants, or whether the special provisions contained in section 24 subsection (2) of the Act of 1923 apply.

In the case Moakes *v.* Blackwell Colliery Company (1925, 2 K.B. 64; *The Builder*, March 27, 1925) the Court of Appeal held that the provisions of section 24 were not retrospective and of course when the present case came before them were bound by their former decision, so the present appeal amounted to an appeal from the decision given in Moakes' case.

The facts of the case are as follows: The appellant was the widow of a man employed by the respondent as a miner and whose husband had been injured by an accident arising out of and in the course of his employment on November 28, 1918. His employers had admitted liability and had paid him compensation in weekly payments until the date of his death, the total sums so paid amounting to £533 18s. 5d. Thus, if the Act of 1906 applied, as the sums exceeded the maximum of £300 payable to persons wholly dependent, and under paragraph (1) (*a*) (i) of the First Schedule any amount paid in weekly payments has to be deducted from the compensation due to them, there was no balance left for the widow to claim, whereas if the Act of 1923 applied the amount deducted in respect of weekly payments must leave a balance available to the adult dependants.

The facts in Moakes' case were very similar except there were other dependants, and, after the weekly payments were deducted, a balance was left for the dependants. It does not appear in Moakes *v.* Blackwell Colliery Company who the dependants were, that is to say, whether they were children, but if the Act of 1906 applies this made no difference, and as in the case under consideration there were no children we will first deal with the case apart from children.

Section 24 subsection (2) of the Act of 1923 provides: "No deductions shall be made under paragraph (1) (*a*) (i) of the First Schedule to the principal Act as amended by section 2 of this Act" (that is, the section which increases the compensation where children are left) in respect of the amount of any weekly payments made under the principal Act, so as to reduce the sum payable in respect of the children of the workman under the said section 2, nor to reduce the amount payable under the principal Act below £200. It is these latter words which were in question in this case.

The argument for the appellant, the widow, was that section 30 of the Act of 1923 provides that sections 2 to 10 of that Act shall not apply to any case where the accident happened before the commencement of the Act (January 1, 1924), whereas the above provision is contained in section 24 and another subsection (3) which is contained in that section, increasing the amount payable where there are no dependants, clearly applies to all accidents whenever they happen, and therefore subsection (2) must also so be construed.

The House of Lords pointed out that subsection (3) is express in its terms without

any reference to the excepted sections, whereas subsection (2) refers to the excepted sections, for the direction as to a deduction not being allowed which will reduce the sum due to the dependants below £200 refers to the sum calculated under the First Schedule paragraph (1) (*a*) (i) *as amended by section* 2 *of the Act of* 1923, which is one of the excepted sections having no operation where the accident happened before the Act came into force. Therefore the House held this subsection has no application where the accident occurred before January 1, 1924. The Court of Appeal in Moakes' case had come to the same conclusion by applying the Interpretation Act, but Lord Dunedin pointed out that strictly speaking that Act only applies to repealing statutes, but that this is not material, for the general canon of construction is only expressed in that Act, and he stated that canon as follows: "When you are construing an Act which makes changes in the law, which changes can well be referred to what the law is to be after the passing of the Act, you will not construe the words so as to upset vested rights and liabilities unless they are clearly to have that effect." This subject of deductions was very complicated under the principal Act as amended by the amending Act of 1923, but can now more clearly be grasped as stated in the consolidating Act of 1925, which came into force May 1 last.

In the eighth article of our recent series on Workmen's Compensation (March 5) we explained the provisions of the new Act on this question, but in view of the above decision we may refer to them again. Section 8 takes the place of the First Schedule as regards the amount of compensation in fatal cases. In subsection (1) the compensation payable is described as "a lump sum," and the special allowance to children is called "the children's allowance." The "lump sum" and the children's allowance, which shall be added together and dealt with as a single sum, and shall not in any case exceed £600. By subsection (2) (i) the "lump sum payable to dependants is not to exceed in any case £300." By subsection (2) (iii) "there shall be deducted from the sum as above calculated" (that is, from the "lump sum" for the dependants) "the amount of weekly payments (if any) made to the workman before his death, so however as not to reduce the lump sum below £200, and if such weekly payments have been redeemed under this Act there shall also be deducted the amount paid in respect of the redemption thereof."

Subsection (3) (i) and (ii) state how the "children's allowance" is to be calculated, and paragraph (iii) then is "No deduction shall be made from the children's allowance in respect of the amount of any weekly payments which may have been made to the workman under this Act in respect of the same injury, but if such weekly payments have been redeemed the amount paid in redemption thereof if, and so far as, it exceeds the lump sum payable shall be deducted from the children's allowance as ascertained under the foregoing rules."

It will be seen that the result of the legislation is made much clearer in the new Act than it was when the principal Act had to be read as amended by the Act of 1923, and its effect is in cases where the accident happened after January 1, 1924, where weekly payments have been made before his death to a workman who leaves dependants wholly dependent upon his earnings not under the age of 15 those weekly payments may be deducted from the compensation payable to those dependants, but only to the extent that the compensation shall not be reduced below £200. If there is a child or children under the age of 15, no deduction shall be made from the special sum called the "children's allowance" unless the weekly payments were redeemed in the workman's lifetime, in which case the sum paid in redemption may be deducted, but so as first to exhaust the sum payable to other dependants.

Paragraph (iii) of subsection (2) is not very cleverly worded to show that the sum paid in redemption of weekly payments may exhaust all compensation payable to the dependants other than children, but from the context in subsection (3) paragraph (iii) this appears to be the case.

Only one other observation seems necessary as it may be asked, Does the Act of 1925, now it is in force, invalidate the decision now given in the above case under the Act of 1923? The answer is in the negative because section 50 subsection (2) of the Act of 1925 enacts that the principal Act of 1906 and the amending Act of 1923 though repealed shall continue to apply to cases where the accident happened before January 1, 1924, and to which they apply at the commencement of the new Act.

SOME USES OF PLYWOOD

PLYWOOD is extensively used for a number of purposes in constructional work of various kinds. As it is a material which is manufactured in many different grades and qualities, care has to be taken that the right grade is selected for any particular purpose. Whereas the cheaper grades of plywood can be used satisfactorily in many cases, the better grades of this material can be employed to advantage in panelling, partitioning, and similar work of the highest class.

In a great many banks and business houses to-day, plywood panelling veneered with a decorative hardwood is to be found. When plywood is used for such purposes as this, there is considerable saving in labour, owing to the fact that the plywood is available in sheets of convenient sizes and thicknesses. Further, work carried out in plywood of quality can be relied on to be immune from any danger of swelling, shrinking or splitting. The accompanying photograph illustrates one of the uses to which plywood may be put in the equipment of shops and offices.

There is considerable scope for the extended use of plywood in building work of many kinds as the properties of this material become more widely recognised. There has been a certain amount of prejudice against plywood in the past, because many people have associated the term "plywood" with something cheap and unreliable. To-day, plywood produced by the manufacturers of repute is a standardised material of reliable quality with a very wide range of uses.

The principles on which the construction of plywood is based are extremely simple. The material is simply a built-up board, the component layers of which are dried to a definite moisture content and are so placed that any tendency of the individual layers to shrink or swell is counteracted by their neighbours, to which they are firmly cemented. This method of building up a plywood board gives it the qualities of strength, lightness and freedom from warping. Moreover, owing to the fact that plywood is made not by sawing the log into pieces of limited width, but by "peeling" the log into a continuous sheet of wood which is cut into any sizes desired, it can be obtained in convenient widths and lengths.

Proposed Fusion of Building Unions.

Steps are being taken, it is understood, to bring about a fusion of the Amalgamated Union of Building Trade Workers and the "Altogether" Builders' Labourers and Constructional Workers' Society. A propaganda campaign is to be started by both organisations immediately, and this will be followed by a ballot of the members.

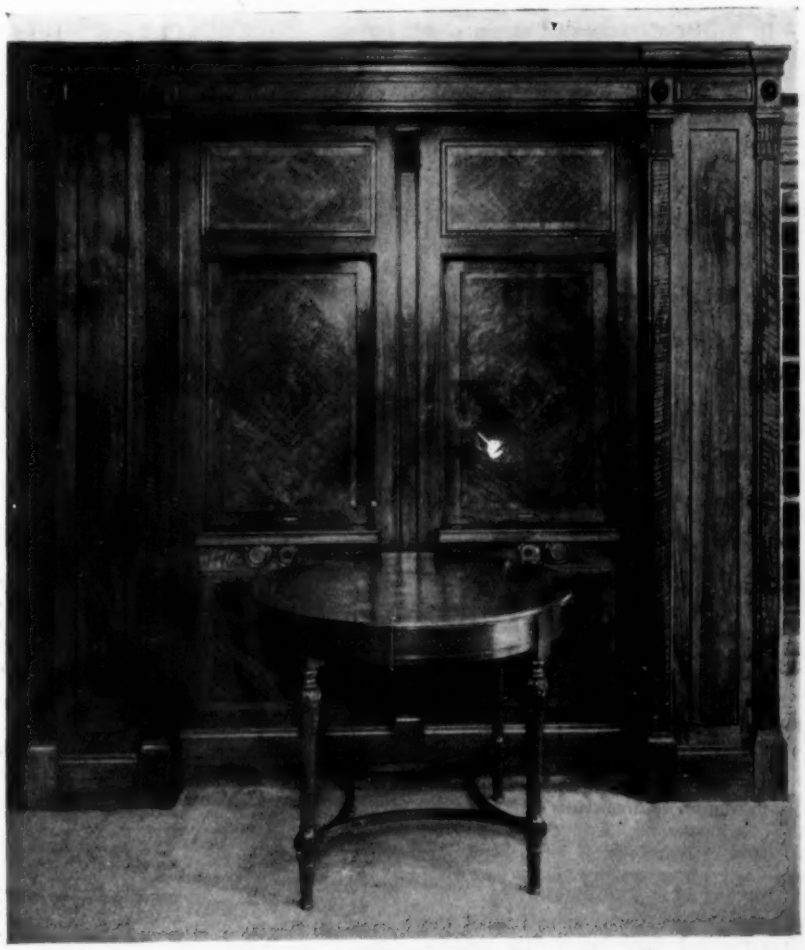


Table and Service Lift Casing in Plywood, at Messrs. Peter Robinson's, Oxford-street, W.

MESSRS. T. P. & E. S. CLARKSON and H. AUSTEN HALL, Architects.

CONCRETING IN COLD WEATHER

THE hardening of concrete proceeds very slowly when the temperature is below 40 deg. F., and below 35 deg. F. there is practically no hardening taking place. At temperatures below freezing point, concrete will, of course, become frozen, and if it has not attained a certain degree of hardness it will disintegrate on thawing. Hence it is desirable when concreting is being done in cold weather to protect the work from freezing, and in this connection it is useful to remember that when cement sets it develops an appreciable amount of heat, and if this heat can be conserved in the concrete it will provide a sufficient protection against the action of frost. To conserve the natural heat of the concrete, it is necessary to enclose it entirely as soon as the concrete is laid. Generally speaking, the concrete is enclosed on three sides by shuttering, and the chief necessity is to enclose its open surface. It is not sufficient merely to throw a few bags over the concrete surface when the frost is severe, and American experiments have shown that some covering such as a tarpaulin stretched on a frame with a close joint to the surface of the concrete is a necessary form of protection. Such an arrangement provides a layer of air between the tarpaulin and the concrete, and this air acts as an insulator. Care must be taken to prevent cold air blowing underneath the tarpaulin above the surface of the concrete.

With reasonably large masses of concrete this measure of protection against frost is usually successful, but when thin masses of concrete are concerned, such as plastering to walls, then it becomes necessary to apply heat, and the following recommendations of the American Portland Cement Association are appropriate :—

Always be prepared to enclose the work and supply heat whenever work that may run into cold weather is begun.

Aggregates are heated to best advantage by 1½ in. steam pipes laid as a grill under the piles, or by a 6 ft. length of perforated steam pipe inserted into the pile.

Water is heated by running a 1½ in. steam pipe into the water barrel.

A 50 h.p. boiler, carrying 50 to 60 lbs. of steam, is required for a large job, but an 18 to 25 h.p. boiler is sufficient for jobs of not more than 5,000 sq. ft. of floor area.

One fire bucket burning coke is usually sufficient for 300 sq. ft. of floor area, and a heat hole should be provided for each fire bucket.

Columns should be concreted at the same time as the floor, and column tamping continued for an hour or more after the floor is concreted.

Bases of exterior columns are most difficult to protect, and in extremely cold weather a fire bucket should be placed on each of two sides of exterior columns.

For unusual speed or cold weather, or when monolithic walls are carried up, the lower floors should be curtained and fire buckets placed at exterior columns.

Apply fuel to fire buckets frequently and in small quantities, to minimise smoke and provide uniform temperature.

Water barrels should be provided to extinguish fires, and care taken to keep canvas from blowing against fire buckets.

A detailed temperature record should be kept showing date, hour, outside temperature, temperature at bottoms of columns, underside of slab, temperature at bases of exterior columns on windward side of building.

Aim at a minimum temperature of 60 deg. F. within the enclosure for five days. During protracted cold weather keep the tarpaulins up and maintain a temperature of not less than 40 deg. F. for ten days additional.

Do not remove permanent shores until the strength has reached three-fourths the design-strength of the concrete.

Do not depend on anti-freezing compounds instead of protection and heat. Accelerators do not furnish heat to start the hardening process, but once started, accelerators will cause the concrete to gain strength faster if it is kept warm. No accelerators or anti-freezing compounds should be used that will decrease the final strength of the concrete, promote rusting of reinforcement, or produce efflorescence.

In any case, where the concrete is to be protected by its own natural heat, or by external heat, steps should be taken to warm the water and the sand and ballast to about 60 deg. F. before commencing the mixing.

PLUMBING TRADES' NATIONAL APPRENTICESHIP COUNCIL

AT a meeting of this Council, held on October 21 at the offices of the Institute of Plumbers, reports were received as to action taken since the previous meeting to secure the practical adoption of the National Apprenticeship Scheme in various parts of the country. It was stated that a promising start had been made in North-East Lancashire, and the Council had provisionally approved the constitution of a North-East Lancs Area Council for the local working of the scheme. As regards the Manchester area, the scheme was being actively worked in Manchester itself, but not much headway had been made in the outlying districts. It was hoped that a local scheme adopted in the North-East Coast area would shortly be sent up for endorsement by the National Council.

The meeting considered two apprenticeship schemes that had been adopted for the purposes of the general building industry in the Portsmouth and Southampton districts respectively. It was decided to take no action regarding either, pending the consideration of a motion which Mr. Sigsworth gave notice he would move at the ensuing meeting of the Council to the following effect :—

"That we discuss the advisability of approaching the National Federation of Builders' Employers' and N.F.B.T. Operatives with a view of getting them to adopt our Apprenticeship scheme."

The receipt of a contribution of £10 from the Institute and Federation of Master Plumbers was reported.

The award of the Lead Manufacturers' annual prizes to successful candidates at the City and Guilds Examination was reported, viz., to H. H. Rudd, Final Major Course, £3 ; to G. S. Francis, Final Minor Course, £2. Mr. Morris, who had been an examiner at the examination in question, commented on the unsatisfactory nature of the work done by some of the candidates, which seemed to indicate that at certain Institutes the quality of the instruction given left something to be desired. It was decided to refer the matter to the Plumbing Advisory Committee of the City and Guilds, where it had already been under discussion.

The next meeting of the Council was fixed for December 14.

Burlington Arcade.

Burlington Arcade has been sold by the syndicate who purchased the property in August last from Lord Chesham to Messrs. Hillier, Parker, May & Rowden, acting for a property company whose identity was not disclosed. The price was £330,000.

Obituary.

Mr. Henry Almond, J.P., head of the firm of Caldwell & Almond, building material and cement merchants, Plymouth, and of J. & T. Harvey, cement manufacturers, Cattedown, Plymouth, has died at his residence at Mutley, aged 79.

COMPARISON OF PRICES OF BUILDING MATERIALS ON OCTOBER 1st, WITH CURRENT PRICES.

Materials	October 1, 1926. £ s. d.	November 1, 1926. £ s. d.	Rise. %	Fall %
Bricks—				
Best Stocks	4 5 6	4 5 6	—	—
Flettons	2 13 3	2 13 3	—	—
Glazed	23 0 0	23 0 0	—	—
Thames Ballast	0 10 6	0 10 6	—	—
Thames Sand	0 14 6	0 14 6	—	—
Shingle (¾ in.)	0 12 9	0 12 9	—	—
Portland Cement	2 18 0	3 8 0	17.24	—
Ground Blue Lias Lime	2 9 6	2 13 6	8.08	—
Grey Stone Lime	2 16 9	3 0 9	7.05	—
Bath Stone	0 2 9½	0 2 9½	—	—
Portland Stone	0 4 4	0 4 4	—	—
Good Sound Building Timber—				
4 in. × 11 in.	28 0 0	28 0 0	—	—
3 in. × 11 in.	25 0 0	25 0 0	—	—
2 in. × 11 in.	25 0 0	25 0 0	—	—
3 in. × 9 in.	24 0 0	24 0 0	—	—
3 in. × 7 in.	20 0 0	20 0 0	—	—
3 in. × 4 in.	22 0 0	22 0 0	—	—
Slates—				
24 in. × 12 in.	37 12 6	37 12 6	—	—
22 in. × 12 in.	34 0 0	34 0 0	—	—
20 in. × 10 in.	25 12 6	25 12 6	—	—
16 in. × 10 in.	17 12 6	17 12 6	—	—
16 in. × 8 in.	13 15 0	13 15 0	—	—
R.S. Joists	12 10 0	12 10 0	—	—
Iron—				
Common Bars	13 0 0	13 0 0	—	—
Mild Steel Bars	10 0 0	10 0 0	—	—
Steel Bars	10 0 0	10 0 0	—	—
Cut Nails	19 0 0	19 0 0	—	—
Sheet Lead	45 0 0	44 0 0	—	2.22
Glass—				
15 oz. Sheet	0 0 3½	0 0 3½	—	—
21 oz. Sheet	0 0 4½	0 0 4½	—	—
26 oz. Sheet	0 0 5	0 0 5	—	—
Raw Linseed Oil	0 3 0	0 3 3	3.3	—
Turpentine	0 5 5	0 5 3	—	3.08
Ground English White Lead	54 15 0	52 15 0	—	3.65
White Lead Paint	73 5 0	71 5 0	—	2.73
Red Lead	45 10 0	44 0 0	—	3.30

RATES OF WAGES IN THE BUILDING TRADE

Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.

	Masons	Bricklayers.	Carpenters Joiners	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Alfreton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Alnwick	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashford (Kent)	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Ashington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Aylesbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Aylsham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Banbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barnstaple	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Basingstoke	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bath	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bedford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Berwick	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bexhill	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Birkenhead	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Birmingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bolton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bournemouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bradford	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bradford-on-Avon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Braintree	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Bridlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brighton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bromsgrove	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bromyard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Bungay	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burton-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Buxton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Canterbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Carlisle	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chatham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chelmsford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chorley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cirencester	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/1
Clacton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cranbrook	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cromer	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Denbigh	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Devizes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Dewsbury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dorchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Dorking	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Driffield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Droitwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Dudley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Eastbourne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
E. Glam. (Mon. Val)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ely	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/7	1/7	1/7	1/7	1/7	1/7	1/6	1/2½
Exmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Fakenham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Felixstowe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Glossop	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Goole	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Gosport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Great Yarmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Guildford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Harpenden	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hatfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hednesford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hereford	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Herne Bay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hertford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hitchin	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hoddesdon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Holt	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hull	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hunstanton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Huntingdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Isle of Wight	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Ipswich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Keighley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
King's Lynn	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Lancaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leighton Buzzard	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lichfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Littlehampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Liverpool	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Llandudno	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
London:								
12 m. radius	1/9½	1/9½	1/9½	1/9½	1/9½	1/9½	1/8½	1/4½
12–15 m. radius	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/4
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Lowestoft	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Macclesfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Maidstone	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Malvern	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Matlock	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Melton Constable	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Melton Mowbray	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newark	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Newbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newcastle-ur-Lyme	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
New Forest	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Newmarket	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Nuneaton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Peterborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Plymouth	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ramsgate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Redditch	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ripon	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Rochester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rugby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Helens	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Sawbridgeworth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Saxmundham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sevenoaks	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Sittingbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stevenage	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stoke-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stourbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stourport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stowmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stratford-on-Avon	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stroud	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5	1/1½
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swaffham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swindon	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Tamworth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Taunton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Thetford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Totnes	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/1
Trowbridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Tunbridge Wells	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Uttoxeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Walsall	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wallsend	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Warminster	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Warwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wells (Norfolk)	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Welwyn Gar. City	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Weston-sup.-Mare	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Weymouth	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/1
Whitby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Winchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wisbech	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Woodbridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Worksop	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Worthing	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Wrexham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wroxham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Wymondham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
York	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½

(For rates of wages in the Building Trade in Scotland, see page 760.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

NOVEMBER 8.—**Abergele and Pensarn.**—HOUSES.—Twenty-two houses on the Abergele housing estate, including road construction work and works of sewerage in connection with the scheme, for the U.D.C. H. A. Jones, engineer and surveyor, Town Hall, Abergele. Deposit £1 1s.

NOVEMBER 8.—**Easington.**—PAINTING.—Painting and renovation of the Easington Colliery Council Schools, for the Durham County E.C. A. Moir, District Clerk, District Education Office, Council School, Haswell, Co. Durham.

NOVEMBER 8.—**Edinburgh.**—ALTERATIONS.—To house at Bloomiehall Park, Juniper Green, for the T.C. E. J. MacRae, A.R.I.B.A., City Architect.

NOVEMBER 8.—**Kirkcaldy.**—HOUSES.—Sixteen houses at Massereene-road, for the District Committee. W. Williamson, F.R.I.B.A., architect. Deposit £1 1s.

NOVEMBER 8.—**Madeley (Staffs).**—STOREROOM.—Building a storeroom and shed on land near he L. M. & S. Rly. bridge at Madeley, and for the fencing of the site, for the Newcastle-under-Lyme R.D.C. W. Hemmings, surveyor, Hill Chorlton, near Newcastle, Staffs. Deposit £1 1s.

NOVEMBER 8.—**Neath.**—HOUSES.—Sixteen houses, semi-detached blocks of two, in brickwork, at Resolven, near Neath, for the R.D.C. D. M. Davies, L.R.I.B.A., engineer and architect, Orchard-street. Deposit £2 2s.

NOVEMBER 8.—**New Blackpool.**—ALTERATIONS.—To Farnley Co-operative branch shop, New Blackpool. Farnley Co-operative Society, Ltd., New Farnley, Leeds.

NOVEMBER 8.—**Nottingham.**—CONVENIENCE.—Ladies' convenience on Nottingham Forest, for the T.C. City Engineer.

NOVEMBER 8.—**Staines.**—DEMOLITION.—Pulling down and rebuilding a chimney shaft and for certain alterations to their board room, both situate in the London-road, Ashford, for the B.G. R. A. Hogarth, clerk, Clerk's Office, Stanwell-road.

NOVEMBER 8.—**Woodhouse.**—CONVENIENCES.—Additional conveniences at Woodhouse (Sheffield) Secondary School, for the West Riding E.C. Education Department, County Hall, Wakefield.

NOVEMBER 8.—**Workington.**—HOUSES.—Erection and drainage of 100 houses in connection with the Salterbeck housing scheme, for the Corporation. H. B. Williams, Borough Engineer and Surveyor. Deposit £2 2s.

NOVEMBER 9.—**Caerphilly.**—ELECTRIC LIGHTING.—Installation of wiring in 54 houses now in course of erection at Nantgarw, near Caerphilly, for the U.D.C. Mr. W. C. B. Hillman, Electrical Engineer.

NOVEMBER 9.—**Dublin.**—BUILDING.—Construction of a new fireproof strong room, &c., at the Custom House Docks, Dublin, for the Port and Dock Board. E. H. Bailey, secretary, Port and Docks Office.

NOVEMBER 9.—**East Sussex.**—SCHOOL.—Erection of new secondary school for girls (150) and boys (150) at East Grinstead, in the County of East Sussex, for the County Council. County Surveyor and Architect's Department, 10, North-street, Lewes. Deposit £3 3s.

NOVEMBER 9.—**Fairburn.**—ADDITIONS.—Alterations and additions to Fairburn Council school, for the West Riding E.C. The Education Department, County Hall, Wakefield.

NOVEMBER 9.—**Ireland.**—RESTORATION.—For (1) Cobh ex-R.I.C. barracks, Co. Cork, and (2) Eyrecourt ex-R.I.C. barracks, Co. Galway, for the Commissioners of Public Works. J. J. Healy, secretary, Baile Atha Cliath, Dublin. Deposit £1.

NOVEMBER 9.—**Ongar.**—COTTAGES.—In the following parishes, viz.:—Norton Manderville, two pairs; Blackmore, two pairs; Shelley, three pairs, for the R.D.C. P. Pearce, Housing Surveyor. Deposit £1 1s.

NOVEMBER 9.—**St. Austell.**—HOUSES.—Fifty houses on the Polkyth housing site, for the U.D.C. E. D. Groves, engineer and surveyor. Deposit £2 2s.

NOVEMBER 9.—**South Dublin.**—REPAIRS.—Repairs to labourers' cottages in Tallaght Area and Rathfarnham and Whitechurch areas, for the R.D.C. G. Gallagher, Clerk, 1, James's-street.

NOVEMBER 9.—**South Kirkby.**—SCHOOL.—New school for 600 children at South Kirkby, for the West Riding E.C. The Education Department, County Hall, Wakefield.

NOVEMBER 10.—**Adwick-le-Street.**—WIRING.—Internal wiring of 264 Council houses, for the U.D.C. W. M. Selvey, consulting engineer, Independent Buildings, Sheffield. Deposit £1 1s.

NOVEMBER 10.—**Birmingham.**—DEMOLITION, &c.—Demolition and removal of buildings and reinstatement of ground (as grazing land) at Princess Mary's Convalescent Centre, Rendal, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

NOVEMBER 10.—**Essex.**—ALTERATION AND ADDITIONS.—To the Great Bansteed elementary school, for the Essex Education Committee. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford. Deposit £1 1s.

NOVEMBER 10.—**Grantham.**—EMPLOYMENT EXCHANGE.—Erection of at Grantham, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

*NOVEMBER 10.—**Margate.**—HOUSES.—Erection of 78 non-parlour type houses on the Dane Valley Estate, Cliftonville, Margate, for the Housing Committee of the Margate Borough Council. E. Brooke, Town Clerk, 13, Grosvenor-place, Margate. Deposit £5 5s.

NOVEMBER 10.—**Salford.**—OFFICES.—Electricity showrooms and offices, Chapel-street, for the T.C. C. Swain, architect, 12, Exchange-street, Manchester. Deposit £2 2s.

NOVEMBER 11.—**Derby.**—BUILDING.—Sports stand with dressing-room accommodation on the Corporation sports ground, Osmaston Park-road, for the C.B. C. A. Clews, Borough Surveyor, Babington-lane. Deposit £1 1s.

NOVEMBER 11.—**Glasgow.**—PLASTERING.—Plasterwork of 60 houses at Summertown-road housing site, for the T.C. J. Lindsay, Town Clerk.

NOVEMBER 11.—**Glasgow.**—PAINTING.—Painter work of 180 houses at Wellmeadow and Auldhousefield, Pollockshaws, for the T.C. J. Lindsay, Town Clerk.

NOVEMBER 11.—**Hull.**—PAVILION.—Erection of an infectious diseases pavilion and isolation cubicle block, including drainage, roads, &c., at the Cottingham Castle estate, for the T.C. D. Harvey, City Architect. Deposit £2 2s.

NOVEMBER 11.—**Kent.**—COUNTY SCHOOL.—Erection of the new County School for Girls, Ashford, in the county of Kent, for the Kent Education Committee. W. H. Robinson, F.R.I.B.A., Room 69, Sessions House, Maidstone. Deposit £2 2s., in the form of a cheque payable to the Kent Education Committee, and crossed "National Provincial Bank, Ltd."

*NOVEMBER 11.—**Keynsham.**—HOUSES.—Twenty-six semi-detached parlour-type houses on the Council's estate at Brislington, for the R.D.C. H. W. Argile, Building Surveyor, 16, High-street, Keynsham, near Bristol. Deposit £1 1s.

NOVEMBER 11.—**Luton.**—BUILDING.—Second section of the engine-room at the sewage pumping station, Windmill-road, for the T.C. J. W. Tomlinson, Borough Engineer and Surveyor, 18, Upper George-street.

NOVEMBER 11.—**Southend.**—HEATING.—Accelerated low-pressure hot-water heating at Southend Sorting Office, for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

NOVEMBER 11.—**Swansea.**—EMPLOYMENT EXCHANGE.—Erection of The Docks Employment Exchange, Swansea, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

NOVEMBER 11.—**Thame, Oxon.**—HOUSES.—Erection of seven pairs of non-parlour houses, for the R.D.C. H. B. Barnsley, Council's Architect, Knightsbridge Farm, Shirburn, Watlington, Oxon.

NOVEMBER 12.—**Belfast.**—BASEMENT STORY.—Construction of the basement story of the new Parliament Building, Stormont Castle Estate, Belfast, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

NOVEMBER 12.—**Birmingham.**—HEATING.—Installation of heating and hot-water services in a separate block, being adapted to provide accommodation for Medical Staff, at the Dudley-road Hospital, for the B.G. Edwards & Shaw, Consulting Engineers, 105, Colmore-row. Deposit £2 2s.

NOVEMBER 12.—**Halifax.**—EMPLOYMENT EXCHANGE.—Erection of an Employment Exchange at Halifax, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

NOVEMBER 12.—**London.**—EXTERNAL PAINTING WORK.—At Cornwall House, Stamford-street, S.E., for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 13.—**Bristol.**—BUILDING.—A laundry building at Eastville Institution, for the B.G. T. S. Lamb, clerk. St. Peter's Hospital, Bristol. Deposit £3.

NOVEMBER 13.—**Enagh.**—SCHOOL.—Public elementary school at Enagh, Co. Derry, for the Very Rev. W. B. MacFeely, Waterside. W. J. Doherty, architect, 12, Castle-street, Londonderry.

NOVEMBER 13.—**Nairn.**—ADDITIONS.—Alterations and additions to the Academy Buildings, Nairn, for the County E.C. H. T. Donaldson, Clerk to the Authority, Nairn.

NOVEMBER 13.—**St. Helens.**—HOUSES.—Erection of 62 non-parlour, three-bedroom type houses, as follows: Site "C," Borough-road, 40 houses; site No. 6, Robins'-lane, 22 houses, for the Corporation. Arthur W. Bradley, M.Inst.C.E., Borough and Water Engineer, Town Hall, St. Helens. Deposit £2.

NOVEMBER 13.—**Wednesbury.**—DEMOLITION.—Of the existing property and the erection of four houses at Little Hill, for the T.C. A. Booth, Borough Engineer and Surveyor. Deposit £2 2s.

NOVEMBER 15.—**Blackpool.**—HOUSES.—Sixteen houses adjacent to Mather-street (off Talbot-road), for the C.B. F. Wood, Borough Engineer and Surveyor. Deposit £2 2s.

NOVEMBER 15.—**Bootle.**—PAINTING.—Cleaning, durescoing, and painting the interiors of the following schools during the Christmas holidays:—(1) St. James' Select School, (2) part of the Boys' Secondary School, (3) part of the Junior Technical School, for the C.B. Borough Engineer.

NOVEMBER 15.—**Carlisle.**—PAINTING, &c.—At the Fusehill Institution, for the B.G. J. Gorton, clerk, 7, Victoria-place.

*NOVEMBER 15.—**London.**—NEW WARDS, OPERATING THEATRE, &c.—Erection of new receiving wards, operating theatre, and other works at St. Luke's Hospital, Cale-street, S.W.3, for the Guardians of the Parish of Chelsea. Chas. W. Shepheard, Clerk to the Guardians, Guardians' Offices, 250, King's-road, S.W.3. Deposit £5.

NOVEMBER 16.—**Birmingham.**—PAINTING.—Painting of the main corridors at Dudley-road Hospital, for the B.G. J. Curtis, Clerk, Union Offices. Deposit £2 2s.

NOVEMBER 16.—**Glasgow.**—HOUSES.—Houses at Govanhill and Shettleston housing sites, for the T.C. J. Lindsay, Town Clerk.

NOVEMBER 16.—**Gosforth.**—HOUSES.—Five dwelling-houses in flats in Santon-street, for the U.D.C. G. Nelson, Engineer and Surveyor.

NOVEMBER 16.—**Newton Abbot.**—HOUSES.—Twenty-eight houses at Bovey Tracey, also the construction of a short length of road on the site and the extension of the sewer and water mains, for the R.D.C. B. H. Palmer, L.R.I.B.A., Union-street, Newton Abbot.

NOVEMBER 16.—**Southport.**—EMPLOYMENT EXCHANGE.—Erection of, at Southport, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 17.—**Dublin.**—HEATING.—Installation of a hot-water heating system at Griffith Barracks, for the Commissioners of Public Works. J. J. Healy, secretary, Office of Public Works, Baile Atha Cliath. Deposit £1.

NOVEMBER 17.—**Liverpool.**—DWELLINGS.—Eighteen tenement dwellings on the Pitt-street area, for the T.C. Acting-Director of Housing, Municipal Buildings, Dale-street. Deposit £1 1s.

NOVEMBER 17.—**Newcastle-upon-Tyne.**—SCHOOL.—Large elementary school (1,550 scholars) on the Pendower estate, for the E.C. Thos. Walling, Director of Education, Northumberland-road. Deposit £5.

NOVEMBER 17.—**Stockton-on-Tees.**—EMPLOYMENT EXCHANGE.—Erection of, at Stockton-on-Tees, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 18.—**Hampton, Middlesex.**—TELEPHONE EXCHANGE.—Erection of Molesey Telephone Exchange, Hampton, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 18.—**Limerick.**—HOUSES.—Fifty houses, for the Irish Sailors' and Soldiers' Land Trust. R. E. Beckerson, Chief Clerk, Irish Sailors' and Soldiers' Land Trust, 30, Lower Fitzwilliam-street, Dublin. Deposit £5 5s.

NOVEMBER 19.—**Ireland.**—ENLARGING.—For (1) Turlough National School, Ballyvary, co. Mayo, and (2) Breaffy National School, Castlebar, co. Mayo, for the Commissioners of Public Works. J. J. Healy, Secretary, Office of Public Works, Baile Atha Cliath, Dublin. Deposit £1 each.

NOVEMBER 19.—**Nelson.**—CHIMNEY.—Pulling down of a disused chimney at the sewage works, for the Corporation. Borough Surveyor.

NOVEMBER 19.—**Southend-on-Sea.**—MAIN TELEPHONE EXCHANGE.—Erection of, at Southend-on-Sea, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

*NOVEMBER 19.—**Sutton, Surrey.**—TELEPHONE EXCHANGE.—Erection and completion of, at Sutton, Surrey, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 20.—**Pontefract.**—HOUSES.—106 houses on the Baghill housing site, for the T.C. W. H. Newton, Borough Engineer. Deposit £5.

*NOVEMBER 20.—**Reading.**—HOUSES.—Erection of 137 on the Oxford-road Housing Site, for the Housing and Town Planning Committee of the County Borough Council. Housing Architect, Municipal Buildings, St. Laurence's Churchyard, Reading.

*NOVEMBER 22.—**Aldershot.**—EMPLOYMENT EXCHANGE.—Erection and completion of at Aldershot, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

*NOVEMBER 22.—**Southend-on-Sea.**—EXTENSIONS.—Erection and completion of extensions to the refuse destructor, and works incidental thereto, at the Sewage Disposal works, Prittlewell, for the Corporation. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

*NOVEMBER 23.—**Chorley Wood.**—TELEPHONE EXCHANGE.—Erection at Chorley Wood, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 23.—**South Dublin.**—COTTAGES.—Forty-two labourers' cottages, for the R.D.C. G. Gallagher, Clerk of the Council, 1, James's-street, Dublin.

NOVEMBER 23.—**West Bromwich.**—ALTERATIONS.—Alterations, decorations and repairs at the Institution in Hallam-street, for the B.G. J. P. Osborne & Son, architects, 95, Colmore-row, Birmingham.

NOVEMBER 24.—**Bramshill (Hants).**—COTTAGES.—100 cottages in pairs at the following sites, for the Hartley Wintney R.D.C.: Parishes of Bramshill, Crondall, Mattingley, Rotherwick, South Warnborough, Crookham, Eversley, Hartley Wintney, Odiham, and Yateley. Clerk, Council Offices, Hartley Wintney. Deposit £1.

★NOVEMBER 24.—**Edmonton.**—HOSPITAL ALTERATIONS.—Carrying out of certain alterations to the Maternity Wards at the North Middlesex Hospital, for the Guardians of the Edmonton Union. J. C. S. Mummery, A.R.I.B.A., 34, Bloomsbury-square, W.C.1.

NOVEMBER 24.—**London.**—ELECTRICITY SUB-STATION.—Erection of, at Stamford Hill, Hackney, for Council of the Metropolitan Borough of Hackney. Borough Electrical Engineer, 18–24, Lower Clapton-road, E.5. Deposit £2 2s.

NOVEMBER 24.—**St. Albans.**—COTTAGES.—Forty-four cottages at the Camp housing site, for the T.C. F. T. Negus, City Engineer and Surveyor, 96, Victoria-street. Deposit £1 1s.

★NOVEMBER 25.—**Highgate.**—COTTAGES.—Erection of 32 cottages, together with drainage and fencing, at the Rectory Gardens housing site, Hornsey, for the Hornsey Town Council. W. H. Adams, Deputy Borough Engineer and Surveyor, Town Hall, Highgate, N.6. Deposit £2.

NOVEMBER 25.—**Manchester.**—HOUSES.—Erection of four houses and upwards on the Kingsway and Gorton estates (the number to which the tender applies to be set out on the form of tender), for the Housing Committee of the City of Manchester. Housing Director, Town Hall. Deposit £2 2s. to the City Treasurer.

NOVEMBER 25.—**Stourbridge.**—HOUSES.—104 non-parlour, three-bedroom houses, on the Grange estate, for the T.C. F. Woodward, Borough Surveyor and Architect. Deposit £2 2s.

★NOVEMBER 27.—**Stockton-on-Tees.**—COTTAGES.—Erection and completion of 33 pairs of "A" type cottages, nine pairs of "B" type cottages, and 17 blocks of flats, upon the Mount Pleasant housing estate, Norton road, Stockton-on-Tees, for the Corporation Borough Engineer, Victoria-buildings, Stockton-on-Tees; or the Architects, Lanchester, Lucas & Lodge, 19, Bedford-square, London, W.C.1. Deposit £2 2s.

DECEMBER 1.—**Sheffield.**—SCHOOL.—Erection of Prince Edward Council School, on the Manor Estate, Intake, for the T.C. W. G. Davies, A.R.I.B.A., City Architect. Deposit £2.

★DECEMBER 6.—**Chelmsford.**—SCHOOL.—Erection and completion of a new elementary school, together with all outbuildings, fencing, playgrounds and caretaker's house, on the Boarded Barns Estate, Chelmsford, for the Town Council. Ernest J. Miles, Assoc. M.Inst.C.E., Borough Engineer, Municipal Offices, Rainsford House, Chelmsford. Deposit £2 2s.

DECEMBER 7.—**Bri Chualann.**—CONVENIENCES.—Public lavatories, &c., on site between Municipal Baths and Strand-road, for the U.D.C. E. M. Murphy, surveyor. Deposit £1 1s.

NO DATE.—**Bingley.**—BATHS.—Mason's and bricklayer's work and concretor's work required in the erection of public baths, for the U.D.C. E. O. Robinson, A.R.I.B.A., architect.

NO DATE.—**Birmingham.**—HOUSES.—166 houses in Gospel-lane, Acock's Green, for the Public Works and Town-Planning Committee. H. H. Humphries, City Engineer and Surveyor. Deposit £1 1s.

NO DATE.—**Nottingham.**—REMOVAL.—Removal of the Morley Statue in Theatre-square to the Arboretum, for the T.C. T. Wallis Gordon, City Engineer.

NO DATE.—**Port Talbot.**—LIGHTING.—Equipment of the buildings of the Working-Men's Club and Institute, Ltd., Aberavon, Port Talbot, for electrical lighting. W. Leyshon, secretary. Deposit £1 1s.

MATERIALS, etc.

NOVEMBER 8.—**Dublin.**—MATERIALS.—Building materials and timber, castings, colours, varnishes, &c., electrical fittings, for the United Tramways Co. G. Marshall Harriss, General Manager, 59, Upper Sackville-street.

NOVEMBER 10.—**Cambridge.**—MATERIALS.—Broken granite, basalt, slag and tarred macadam, for the C.C. A. E. Peake, County Surveyor, County Hall, Cambridge.

NOVEMBER 11.—**Bristol.**—MATERIALS.—Cement, drain pipes, castings, ironmongery, paints, lead pipe and plumbers' sundries, for the T.C. S. McKenzie, City Engineer and Surveyor, 63, Queen-square.

NOVEMBER 11.—**Southampton.**—CASTINGS.—Cast-iron spigot and socket pipes: 1,000, 3 in. diameter; 100, 5 in. diameter; 80, 10 in. diameter; 12, 18 in. diameter; 12, 24 in. diameter; 20, 2 in. diameter; also 13 tons of spigot and socket special castings, for the C.B. Waterworks Engineer, 21, Shirley-road.

NOVEMBER 12.—**London.**—MATERIALS.—Artificial stone, cement, granite (broken), plumbing works, tar-spraying roads, timber, for the Wandsworth B.C. D. A. Nicholl, Town Clerk, Council House, Wandsworth, S.W.18.

NOVEMBER 12.—**Manchester.**—CEMENT.—Portland cement and timber to certain institutions, for the B.G. Mr. Hargreaves, superintendent of works, Union Offices, All Saints'.

NOVEMBER 13.—**East Sussex.**—MATERIALS.—Granite, binding gravel, limestone chippings and sand, tarred macadam, and road surface dressings, for the C.C. F. J. Wood, County Surveyor, County Hall, Lewes.

NOVEMBER 15.—**Cairo.**—SEWERS.—Supply, construction and delivery in perfect working order and condition of main and branch sewers, for the Commercial Secretary of Cairo. Department of Overseas Trade (Room 50), (Ref. A.X.3719).

NOVEMBER 17.—**Norfolk.**—MATERIALS.—Tar and bituminous materials, tarred slag macadam, dry slag, granite, rock, granite or slag rejections, gravel and flints, binding silt, clean sand for surface tarring, &c., for the C.C. S. H. Warren, County Surveyor, Queen-street Chambers, 9, Queen-street, Norwich.

NOVEMBER 23.—**Liverpool.**—MATERIALS.—20,000 super yds. concrete slabs, 2½ in. thick, 2 ft. gauge, in sizes of 3 ft., 2 ft. 6 in., and 2 ft., for the T.C. City Engineer.

ENGINEERING, IRON AND STEEL.

NOVEMBER 8.—**Clitheroe.**—REPAIRS.—Repairing and partial reconstruction of Eadsford bridge over the River Ribble, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

NOVEMBER 8.—**Rhondda.**—STEELWORK.—220 tons of bridge steelwork, and of 135 tons in an alternative design, for the U.D.C. E. Taylor, engineer and surveyor.

NOVEMBER 8.—**Salford.**—STEELWORK.—For the washhouses and slipper baths in Hodge-lane, for the T.C. C. Swain, architect, 12, Exchange-street, Manchester.

NOVEMBER 8.—**Wirral.**—TANKS.—Settling tanks on the main line sewer to the north of, and adjoining the Wirral Railway, for the R.D.C. W. Webb Shennan, surveyor, 15, Hamilton-square, Birkenhead. Deposit £3 3s.

NOVEMBER 12.—**Guildford.**—EXTENSIONS.—Construction of two new boreholes, 24 in. diameter, 400 ft. deep, at the Joseph's-road pumping station and air-lift pumping to test the water-level under certain conditions of pumping, for the T.C. Percy Griffith, consulting engineer, 39, Victoria-street, S.W.1; or to the Borough Engineer and Surveyor, J.W. Hipwood, Tuns-gate. Deposit £5.

NOVEMBER 13.—**Wolstanton.**—CULVERT.—Construction of a culvert in Mile House-lane, for the U.D.C. A. Cotton, Engineer and Surveyor, Council House, Wolstanton, Stoke-on-Trent.

NOVEMBER 17.—**Sutton (Surrey).**—DRAINAGE.—Providing and laying sewers from 6 in. to 12 in. in diameter for approximately 6,900 yards, together with manholes, ejectors, and air compressing plant, air mains, rising mains, and construction of detritus chambers, settling tanks, percolating filters, humus tanks and sludge beds, for the U.D.C. Wm. Hedley Grieves, surveyor, Deposit £5 5s.

NOVEMBER 30.—**Portobello.**—WALL.—Reconstruction of the existing outfall at Portobello, together with sea wall and other incidental works, for the Brighton Intercepting and Outfall Sewers Board. D. Edwards, Engineer, Town Hall, Brighton. Deposit £10 10s.

DECEMBER 1.—**Denmark.**—BRIDGE.—Construction of the superstructure, substructure, as well as approach spans, with shore piers, for a double-track railway bridge across Lillebelt, for the Danish State Railways. Danish Legation, London. Deposit, Danish Kroner 500.

ROAD, SEWERAGE, AND WATER WORKS.

NOVEMBER 8.—**Ballinakill.**—SEWERAGE.—Carrying out a scheme of sewerage and sewage disposal at Ballinakill, for the Laoighis County Board of Health and Public Assistance. P. H. McCarthy, M.I.C.E.I., Dublin. Deposit £10 10s.

NOVEMBER 8.—**Blean.**—SEWER.—Construction of about 200 yds. lineal of 6 in. stoneware pipe sewer, two manholes, and other works appertaining thereto, at Beltinge, for the R.D.C. F. A. Ward, engineer, The Institution, Herne Common, Herne Bay.

NOVEMBER 8.—**Coalville.**—RECONSTRUCTION.—Reinforced concrete road construction for laying and maintaining about 7,000 super yards of carriageway in Whitwick, for the U.D.C. L. L. Baldwin, surveyor, Council Chamber.

NOVEMBER 8.—**Hendon.**—IMPROVEMENTS.—Making-up of the following streets, viz.: Hampstead-way, Lodge-road, Cranbourne-gardens (part), Oakfield-road, Prospect-road, Prospect-place, Murray-road and Woodland-way, for the U.D.C. Mr. A. O. Knight, engineer and surveyor. Deposit £10.

NOVEMBER 8.—**Leatherhead.**—MAKING-UP.—Levelling, metalling and making-up of Poplar-road (part), and St. John's-road, Leatherhead, and 330 yds. of 9 in. surface water drain with manholes, for the U.D.C. S. R. Drake, Surveyor. Deposit £1 1s.

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NOVEMBER 8.—**Sheffield.**—ADDITIONS.—Additional conveniences at Woodhouse secondary school, for the West Riding E.C. Education Department, County Hall, Wakefield.

NOVEMBER 8.—**Watford.**—WIDENING.—Of Whippendell-road for a distance of 60 yards at its juncture with Rickmansworth-road, including the extension by 10 yards of a small culvert in reinforced concrete, for the T.C. W. W. Newman, Borough Engineer. Deposit £2 2s.

NOVEMBER 8.—**Wirral.**—SEWER.—Construction of half a mile of 24 in. main sewer and appurtenances, carrying same through embankment, maximum depth 30 ft., and the extension on the foreshore seawards for a further two-fifths of a mile, for the R.D.C. W. Webb Shennan, surveyor, 15, Hamilton-square, Birkenhead. Deposit £3 3s.

NOVEMBER 9.—**Cheadle and Gatley.**—SEWERAGE.—Works of sewerage to be carried out in the High Grove-road, for the U.D.C. G. P. Stanley, acting engineer and surveyor.

NOVEMBER 9.—**Cheadle and Gatley.**—PIPES.—Supply and fixing of 12 in. iron pipes, bends, sluice valves, &c., to syphon under Railway at Heald Green Station, Cheshire, for the U.D.C. G. P. Stanley, acting engineer and surveyor.

NOVEMBER 9.—**South Dublin.**—SEWER.—Construction of 1,944 yds. lineal 9 in. and 562 yds. lineal 6 in. stoneware pipe sewers in the Butterfield-avenue portion of the Rural District, for the R.D.C. T. B. Byrne, Engineer. Deposit £1 1s.

NOVEMBER 10.—**Hunslet.**—SEWERAGE.—Laying about 420 lineal yds. of sewers on the housing estate in North-lane, Oulton, near Leeds, for the R.D.C. W. B. Pindar, Clerk, Leek-street.

NOVEMBER 10.—**London.**—ROADS.—Construction and surfacing work in connection with sections of the North Circular Arterial Road, Walthamstow and Woodford, Essex, for the M.T. Chief Engineer, Roads Department, Ministry of Transport, 7, Whitehall-gardens, S.W.1. Deposit £25.

NOVEMBER 10.—**Rochdale.**—PAVING.—Paving and completion of Wrigley-square, for the C.B. Borough Surveyor.

NOVEMBER 12.—**Essex.**—KERBING.—Surfacing, kerbing work, &c., in connection with a section of the Woodford-Ilford arterial road, for the M.T. Chief Engineer, Roads Department, Ministry of Transport, 7, Whitehall-gardens, S.W.1. Deposit £25.

NOVEMBER 12.—**Stockport.**—DRAINS.—Constructing and laying 30 in., 24 in., 21 in., and 18 in. diameter main surface water drains, &c., in the following streets within the borough, viz., Belgrave-crescent and Woods Moor-lane, and also in private lands, for the C.B. H. Hamer, Borough Surveyor.

NOVEMBER 13.—**Manchester.**—SEWERING.—Sewering, draining, forming, kerbing, surfacing, flagging and completing the various roads on the Moston estate for the T.C. City Engineer (District Surveyor's Department), Town Hall. Deposit £1 1s.

NOVEMBER 15.—**Whitstable.**—MAIN.—Excavating trenches, &c., and supplying and laying about 5,900 yards of 12 in. internal diameter water main of cast-iron, and, alternately, steel tubes, together with other contingent works, for the U.D.C. J. Dunn, Surveyor and Water Engineer. Deposit £2 2s.

NOVEMBER 16.—**Berks.**—REDRAINAGE WORK.—At Broadmoor Asylum, Berks, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 16.—**Watford.**—EXTENSIONS.—Of sewers in Belswains-lane, Abbot's Langley, for the R.D.C. Surveyor, 9, Market-street. Deposit £1 1s.

NOVEMBER 17.—**Wallasey.**—RECONSTRUCTION.—Reconstruction of Liscard-road, from Martin's-lane to Mainwaring-road, for the C.B. Borough Engineer and Surveyor.

NOVEMBER 18.—**Kingston-upon-Thames.**—SEWERS.—Construction of road and sewers on the housing site, for the T.C. Borough Surveyor. Deposit £1 1s.

NOVEMBER 30.—**Bucks.**—ROADS.—Road reconstruction works on a section of the London-Oxford road, approximately 3½ miles in length; also a short by-pass at Gerrards Cross Common Cross-roads, for the C.C. E. Winfield, County Surveyor, Lloyds Bank Chambers, Aylesbury. Deposit £10.

Auction Sales, Tenders, etc.

NOVEMBER 10.—**London.**—Henry Butcher, Hall & Co. will sell on the premises, 143, Shoreditch High-street, E.1, the new and clean stock recently purchased by Cope & Timmins from Messrs. Everest & Co., builders' and plumbers' brasswork, gas tubes, fittings, and brass joints, brass, oxydised and other electric fittings, and accessories, bedsteads, and other miscellaneous goods. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

NOVEMBER 11.—**Bolton.**—Lomax, Sons & Mills will sell, by order of the Bolton Corporation Waterworks Committee, at Belmont Reservoir, Belmont, near Bolton, contractor's plant, rolling stock, &c. Auctioneers, Central Chambers, Bolton; and 2, Booth-street, Manchester.

NOVEMBER 14.—**Ealing.**—Hetherington & Secrett will sell (unless previously sold), at the Town Hall, Uxbridge-road, Ealing, freehold property, yard, workshop and brick-built stabling, together with an excellent villa residence, situate at and known as No. 14, Alexandra-road, West Ealing, W. Auctioneers, opposite Ealing Broadway Stations, and at Gerrards Cross, Bucks.

NOVEMBER 16.—**London.**—Henry Butcher, Hall & Co. will sell, by order of the Joint Liquidators, Mr. F. S. Jackson, F.C.A., and Mr. E. J. Webber, on the premises, High-street, Wimbledon, S.W.19, the plant, machinery and stock of Messrs. T. Holloway, Ltd., builders, decorators, and electricians. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

✱NOVEMBER 16, 17 AND 18.—**Suffolk.**—Perry & Phillips (Bridgenorth), in conjunction with Woodward & Woodward (Stowmarket), will sell, at Bury St. Edmunds, 2 miles from the town, at Hardwick House, the whole of the interior and exterior fixtures and fittings in and about the property, previous to the demolition of the mansion, rare garden ornaments, 11 excellent greenhouses. After the sale of the fixtures and fittings, the fabric of the mansion will be sold for demolition. Auctioneers, 59, High-street, Bridgnorth, and Station-road, Stowmarket.

Competitions.

(*See Competition News page* 724.)

Public Appointments.

✱NOVEMBER 8.—**Cardiff.**—Clerk of Works required in connection with the extension of the Council's Offices, at 20, Park-place, Cardiff. M. Warren, Clerk to the Council, 20, Park-place, Cardiff.

NOVEMBER 10.—**Dublin.**—Two temporary Architects' Assistants required in the Office of Public Works by the Civil Service Commissioners. The Secretary, Civil Service Commission, 33, St. Stephen's Green, Dublin, on the prescribed forms.

✱NOVEMBER 12.—**London.**—Full-time Temporary Instructor of Masonry required by the London County Council. The position may subsequently be made permanent. Education Officer (T.1.a), The County Hall, Westminster Bridge, S.E.1 (stamped addressed foolscap envelope necessary).

✱NOVEMBER 13.—**Horsham.**—Clerk of Works for the Spooner's Farm housing scheme of 60 houses required by the Urban District Council. A. Slyfield, Clerk to the Council, Town Hall Chambers, Market-square, Horsham.

✱NOVEMBER 15.—**Lytham Saint Annes.**—Temporary Assistants required in the Borough Engineer's Department by the Corporation. T. Bradley, Town Clerk, Town Hall, Lytham Saint Annes, endorsed "Temporary Assistant."

✱NOVEMBER 18.—**Essex.**—Architectural Assistant on the Temporary Staff by the Essex County Council, with experience in the design and equipment of Mental Hospitals essential. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford.

NOVEMBER 20.—**Portsmouth.**—One permanent Engineering Assistant to the City Engineer required by the Portsmouth City Council. F. J. Sparks, Town Clerk, Guildhall, Portsmouth.

✱NO DATE.—**Nyasaland.**—Inspector of Works (two) required by the Government of Nyasaland, for the Public Works Department, for a tour of 20–30 months' service in the first instance. Crown Agents for the Colonies, 4, Millbank, Westminster, London, S.W.1, quoting M/14831.

✱NO DATE.—**Sierra Leone.**—Assistant Accountant and Stock-keeper required by the Government of Sierra Leone for the Public Works Department, for a tour of 12–18 months' service in the first instance. Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting M/14934.

✱NO DATE.—**Sierra Leone.**—Stock Verifier required by the Government of Sierra Leone for two tours of service of not less than 12 nór more than 18 months' service, with possible extension. Apply at once in writing to the Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting M/14965.

Covent Garden: A New Suggestion.

In the course of a letter to the *Times*. Mr. Thomas H. Mawson, Past President of the Town Planning Institute, says: "Sir Arthur Du Cros's intimation that the Trust will be pleased to hear of alternative suggestions encourages me to put forward mine—that a central, commodious, and economic site for the market is to be found adjoining the river between the Waterloo and Charing Cross bridges."

Advantages claimed for this proposal are that "the site is adjacent to the main road on which the bulk of the home produce reaches the market, but south of Waterloo Bridge, thus avoiding the double journey of produce for consumption south of the river.

"It is so close to the two railways in most intimate touch with the Southern Counties that, granted an overhead or underground junction, a score or two of yards of additional track only would be sufficient to bring railway trucks right into the heart of the market; while, by means of underground roads, extensions could be obtained on the east side of Waterloo-road.

"It would provide facilities for bringing produce from both home and foreign sources of supply, directly and cheaply, by water, with resultant advantages in the shape of development in river traffic, to the great relief of traffic on the roads of the East End of London.

"The site would provide a unique opportunity for the erection of a noble and dignified architectural group at a point where such a feature is badly demanded. . . . If the site can be secured" (concludes the writer), "and my suggestion is acted upon in its various aspects, I believe that when London is re-planned it will be acknowledged that no site provides such transport facilities as are afforded by the site herein commended."

PROPOSED NEW BUILDINGS & OTHER WORKS*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T for Ministry of Transport; C.B. for County Borough; B.E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board.

ACCRINGTON.—The T.C. are to apply for £10,000 for housing purposes.

BACUP.—The members of St. Saviour's Church are raising funds for the renovation and extension to their edifice and for rebuilding a large retaining wall estimated to cost £2,000.

BALCOMBE.—The M.H. has held an inquiry into the application of the Mid-Sussex Joint Water Board, for sanction to expend unexpended balance of loans in the construction of a reservoir at Balcombe, at the estimated cost of £4,600.

BARKING TOWN.—The Architect has submitted plans to the U.D.C. for (*a*) the erection of flats on land fronting Gascoigne-road, (*b*) houses on three corner sites in Sisley-road on the Eastbury Estate, and the Council recommend that the design for the flats in Gascoigne-road be approved, and the Architect be requested to prepare and submit to the Committee amended designs providing for the erection of two houses on each of the corner sites on the Eastbury Estate. The Architect is to prepare plans for the erection of houses on land belonging to the Council situate at the junction of Bifrons-street with Gascoigne-road.

BARNSLEY.—The West Riding C.C. recommended that the Highways Committee be authorised to expend a sum of £1,450 in the provision of a house and garage for the accommodation of the Divisional Surveyor.

BATH.—The T.C. has resolved that application be made to the Electricity Commissioners for their consent to the borrowing of £5,338.—Arrangements have been made for sub-station sites at Kingsleigh, Bathford.—With reference to the strengthening of the Cleveland Bridge, the City Engineer has submitted a report and estimates of the cost of the construction of a first-class road from London-road, via Cleveland-place, Bathwick-street and Sydney-place to the east end of Pulteney-street. The estimated cost of the road work is £20,100.—The Council resolved that application be made to the M.T. for a grant towards the cost of the reconstruction of the carriageway from London-road to the east end of Pulteney-street; application be made to the M.H for sanction to borrow the balance of the sum of £20,100.—Quantities are being prepared and tenders will be submitted in due course for the adaptation of the Blue Coat School premises.

BEARWOOD.—The Catholic congregation are raising funds for the erection of a new church on a site adjoining the parochial hall.

BEVERLEY.—Mrs. C. S. Grimston, of High Hall, Etton, Beverley, who died on July 17, left £500 to the rector and churchwardens of Etton, upon trust under the direction of a competent architect, to erect a south porch to the church in the same style as the present church.

BIRKENHEAD.—Mr. A. Boyd has made a successful application to the licensing justices for a cinema licence for a theatre he proposes at the corner of Borough-road and Kingsland-road. The buildings are to cost £40,000. Mr. H. A. Thomas is the architect, and the cinema will have a seating capacity for 1,204, on either side of which will be seven shops with house accommodation. The front elevation of the theatre will be of terra-cotta pressed brick, and will be set back 10 ft. from the building line.

BISHOP'S STORTFORD.—A site has been given for a parish hall at Hockerill.

BLACKPOOL.—The C.B. has sanctioned the following plans:—Three houses, Harris-avenue and Bloomfield-road, for — Witt; eight houses, Angers Hill-road and Oxford-avenue, for Cardwell Bros.; four houses, Loop-road, for A. Wilson and others; three houses, off Highfield-road, for J. Harrison; bungalow, Bank-avenue, for J. England & Son; four houses, Rosebery-avenue, for Leach & Unsworth; four houses, Eastbourne-road, for Leach & Unsworth; two bungalows, Chislehurst-avenue, for Cartmell & Richardson; house, Park-drive, for Mrs. A. G. Schofield; house, Balmoral-road, for L. Cohen; two houses and bungalow, Newlands-avenue, for E. Lumb; four houses, Windermere-road, for M. J. Marsden; 21 houses, Beardshaw-avenue, for Beardshaw & Boardman; four flats and two shops, Charnley-road, for R. Fenton; sports pavilion, Stanley-park, for Parks, &c., Committee; tennis pavilion, Stanley-park, for Parks, &c., Committee; two bungalows, Selby-avenue, for W. Braidwood; bungalow, Selby-avenue, for Kay & Fisher; two bungalows, Fleetwood-road, for R. Jackson.

BOURNEMOUTH.—The C.B. has passed the following plans: Two houses, 41 and 42, Brackendale-road, Mrs. Saunders Squires; house and garage, Redhill-crescent, H. Masters; house and garage, Plot 23, Elgin-road, G. E. & W. R. J. Lambert; house, Douglas-road, E. D. Duss; house and garage, Browning-avenue James Drewitt & Son; three houses, Norton-road-W. W. & C. E. Baker; house, 88, Littledown-avenue, A. C. Barnes & Co.; house, 175, Victoria Park-road, E. & H. Joy; house, corner Norton-road, F. Ricketts; two houses, Plots 19 and 21, Horsa-road, Midgley & Hardy, Ltd.; two houses and garages, 162 and 164, Albemarle-road, F. Hoare & Son; house, Herberton-road, pair of houses, Castlemain-avenue, house (corner), Castlemain-avenue, F. Harrington; house (corner), The Avenue, Moordown, Ellison, Son & Dale; two houses, 65 and 66, Danesbury-avenue, F. Johnson; three houses and shop, 11 (corner), Beaufort-road, W. H. Elcock; house, 147, Egerton-road, W. J. T. Stacey; house, 92, Southlands-avenue, Major J. G. Hill; house, Castlemain-avenue, M. Sellick; four houses, Elmes-road, W. Haycraft; five houses, Barrie-road, and five houses, Maclaren-road, F. Moorman; three houses, 35, 36 and 37, Namu-road, S. Horsley; house, next to "Tudor House," Malvern-road, S. G. Ward; house, 38, Highfield-road, Mrs. F. Bickerton; house, 10, Highfield-road, Miss Whyle; two houses, 41 and 42, Ashling-crescent, E. Wellstead; house and garage, 6, Branksome Dene-road, R. J. M. Nabney; house and garage, 57, College-road, H. Solomon; six houses and garages, 64, Dalmeny-avenue, F. W. Johnson; house, 57, Elmes-road, F. C. Rabbitts; parish hall, Wolverton-road, St. Andrew's Church; house, 122, Carbery-avenue, A. Webb; house, 165, Horsa-road, Cox & Clark; house, Beaufort-road, Mr Gwinnell; house, 155, Egerton-road, C. V. Miller.

BRADFORD.—The M.H. has sanctioned the acquisition by the Corporation of 99,499 sq. yds. of land at Thornton for the purpose of erecting houses in connection with the White Abbey rehousing scheme.

BRIGHTON.—The Borough Engineer has submitted a plan for alterations to one of the store rooms at 12, Bond-street to provide office accommodation for the Waste and Meter Inspectors, at £100.—The Borough Surveyor has submitted a plan for providing five garages on the site of the existing old garage in the south-west corner of the abattoir for the accommodation of motor. The C.B. has resolved that the Borough Surveyor be authorised to carry out the work at an estimated cost of £475.—The M.H. has sanctioned the borrowing of £2,250 for the extension of the public convenience on the Western Esplanade, and tenders are to be invited for carrying out the work.—Subject to the approval of the B.E. to the plan and of the M.H. to the loan, the Town Council are to approve the plan for the erection of a caretaker's house at the Mouisecoomb school, at a total estimated cost of £850.—The M.H. has forwarded sanctions to the borrowing by the Council of the sum of £10,000 for housing.—The Council has also resolved that the plan be approved, and that the Borough Surveyor be authorised to obtain a price at which the contractor for the erection of the Open Market would be willing to carry out the work.—The M.H. has also sanctioned the borrowing of £8,705 for the erection of 16 flats on the Moulsecoomb Estate.—The C.B. recommend that the plan prepared by the Borough Surveyor for the erection of public lavatories for both sexes on a site at the London-road entrance to the Marshalls-row Market, at an estimated cost of £1,100, be approved.

BROMLEY.—The T.C. passed plans: A. S. R. Ley's house, Bromley Common; A. H. Jones' house, Park-avenue; G. North's house and shop and two lock-up shops, Brook-lane; Levens & Son's house, Orchard-road; G. H. Skinner, house and shop premises Brook-lane.

BURNLEY.—The Corporation propose to construct the section of an arterial road from Manchester-road to Todmorden-road, at a cost of £37,283.—To the General Purposes Committee of the Education Authority the Director reported that he expected shortly to receive the approval of the B.E. to the acquisition of the Lockyer-avenue site for a new central school. As the use of St. Paul's School by the local authority will be discontinued, the Sites Sub-Committee has been recommended to take immediate action to acquire a site for a new school in the Healey Wood area.

BURY.—The Corporation Housing Committee has requested the Borough Engineer to prepare plans, specifications and quantities for the erection of houses on the Hornby-street site. The E.C. propose to provide a gymnasium at the Secondary School at an estimated cost of £2,000, and to extend the Technical College, which is estimated to cost £15,000.

CAMBRIDGE.—The T.C. passed plans: House, Milton-road, for H. Woodley Betts; house, Queen Edith's-way, Mrs. G. Kett; seven houses, Arbury-road, for J. R. Bennett & Sons; pair of semi-detached houses, Coleridge-road, for J. J. Crown and G. Cox.

CARLISLE.—The R.D.C. has approved plans: Bungalow near Wether Hill, Rockliffe; two pairs of semi-detached two-story parlour houses, on the Wheelbarrow Hall-Scotby-road; and a bungalow near The Green, Houghton.

CARSHALTON.—The U.D.C. passed plans: Thirty-four houses, Orchard-way, 42 houses, Erskine-road, and 40 houses, Byron-gardens, for the Nibloc Syndicate; bungalow, Woodmansterne-road, for G. Eggett; houses and shops, four in Westmead-road, and four in Colston-avenue, for Edser & Brown; two houses on plots 2 and 8, for the Lowry Estates, Ltd.; house and garage, Ashcombe-road, for H. A. Lock; two detached houses, The Crossways (substituting one pair semi-detached, passed for the Banstead Downs Estate, Ltd.) for the Lowry Estates. Ltd.; house, The Pine Walk, for A. J. Huggett; house and garage at Westway, for E. H. Hole; two houses, Banstead-road, for W. F. Goodchild.

CASTLEFORD.—A block of shops and lavatories are to be erected upon a site in Bradley-street, for Messrs. J. Bullock & Sons, Ltd. Plans have been approved for the erection of a new billiard room at Smawthorne-lane for E. J. Gallagher.

CHELTENHAM.—The Corporation's application for sanction to a loan for the creation of a new central park has been granted, on condition that the total outlay does not exceed £10,000.

CHESTER.—The T.C. resolved that, subject to the sanction of the M.H. and of the Electricity Commis-

* See also our List of Contracts, Competitions, etc.

sioners, a sum of £850 be paid to Walkers, Parker & Co., Ltd., for the purchase of 2,730 square yards of land required for the widening and improvement of Station View-road and for the site of a transformer sub-station. —Application is to be made to the M.H. for sanction to borrow the sum of £25,000 for granting loans to persons building houses and £3,750 for subsidising the erection of a further 50 houses.—The M.H. has sanctioned the borrowing for the provision of extensions at the Isolation Hospital. The City Surveyor reported that he was proceeding with the preparation of the specification and bill of quantities for the extension.

CHORLTON-CUM-HARDY.—The provision of a new municipal elementary school for Chorlton-cum-Hardy is being considered by the Manchester City Council. The scheme is to cost about £47,236 for the building and equipment. The site of the proposed school, which has received the approval of the B.E. is at the junction of Barlow Moor-road and the new public park opposite Hardy-lane. The plans provide accommodation for 390 boys, 360 girls, and 480 infants.

CHRISTCHURCH.—The Hampshire E.C. has approved the recommendation of the Elementary Sub-Committee for the provision of a new public elementary school to accommodate about 250 children.

CLANFIELD.—A site is to be obtained by the Hampshire E.C. for a new school.

COVENTRY.—The T.C. passed plans: House, Morningside, for Mrs. E. Player; eight houses, Bull's Head-lane, for E. Harris & Son; house, Morningside, for H. Dusson.

DARLINGTON.—The E.C. Buildings Sub-Committee have considered plans of a new school proposed to be erected in Barnard-street, with an estimate of the cost of semi-permanent buildings, amounting to £4,898, and of permanent buildings amounting to £6,930. It was resolved that tenders be invited for the erection of semi-permanent buildings subject to the approval of the plans by the B.E.

DERBY.—Funds are being raised for extensions at the Derbyshire Hospital for Women, estimated to cost £40,000. The E.C. has decided to apply for sanction of a loan of £3,695 for the erection of the Nightingale-road Senior School.

DOVER.—The Burlington Hotel, Dover, which contains some 300 rooms, and which has been lying empty for some time, has been sold for conversion into residential flats.

EAST GRINSTEAD.—The M.H. has sanctioned the purchase of a housing site at Lye Green.

EAST HAM.—The Borough Engineer has submitted plans and estimate amounting to £210 for the erection of lavatory accommodation in the Barking-road recreation ground, for which sanction of the M.H. has been obtained. The Borough Engineer has also submitted details of shelters suitable for erection in Barking-road recreation ground.—The M.H. has approved the extension of the Slipper and Vapour Baths at the Central Baths, and the B.C. recommend that tenders be obtained for the erection of the additional dressing-boxes and that the Borough Engineer be instructed to prepare an amended scheme providing for the re-conditioning of the old vapour baths and for new slipper baths to be erected over the existing slipper baths in lieu of in the space now occupied by the old vapour baths. The Central Baths Sub-Committee recommend that the estimates submitted by the Borough Engineer for the extension of the baths, at £1,851.—Plans passed: House, 36, Milton-avenue, for W. F. Blake, and house, Sussex-road, for A. Smith.

ECCLES.—The T.C. has approved the plans for Monton Cinemas, Ltd., for proposed cinema and six lock-up shops to be erected in Monton-road.

EDMONTON.—The U.D.C. passed plans: G. W. Newman, two pairs of houses at The Meadway; Williamson & Wicken, six houses in Church-street; C. Hartshorne, three houses at The Orchard; A. Jones, house and garage in Colne-road; Morter & Forster, five pairs of semi-detached houses at The Meadway; F. Dod & Co., 13 houses in Alpha-place; R. Johnson, lock-up garages in Monmouth-road; A. F. Whitlock, house, 32, King's-road; G. F. Pulsford, six houses, Little Bury-street.

EPSOM.—The Council passed plans: Cottage in Worple-road, for A. J. Wapling; pair of villas, with garage, in Ashley-avenue, for H. H. & F. Roll; house in Ridgeway, for Mr. Dunstall; bungalow at Woodcote Park-road, for E. H. V. Turner; bungalow at Woodcote Park-road, for G. Webster; house in Christ Church Mount, for Mr. Freaker; three pairs of villas in Ashley-avenue, for H. H. & F. Roll.

FAIR OAK.—The Hampshire E.C. is to secure a site for a new school.

GUILDFORD.—The E.C. has prepared a scheme for the extension of the technical institute, in which it is proposed to erect shops on the ground floor and classrooms over.

HAILSHAM.—The R.D.C. has approved a scheme for erecting 18 houses.—In the report of the Housing Committee, submitted to the Council, it was recommended that the following be adopted as the Council's building programme, to be erected as early as practicable: 10 houses at Heathfield, four at Hurstmonceaux and four at Hellingly, and that enquiries be made as to sites.—Plans passed: Bungalow at the Dicker, Hellingly, for E. T. Saunders.

HASTINGS.—The report of the architect and surveyor, engaged by the Corporation, dealing with necessary work to bring the White Rock Baths up to date and also provide medical baths, has been circulated. The expenditure suggested is £102,000.

HORNSEA.—The U.D.C. Finance Committee has discussed the Promenade Committee's suggested expenditure of £7,500 on the proposed erection of a retaining wall on the North End promenade, with shelter and 22 bathing bungalows, the enlargement of the Floral Hall, and the erection of a new cafe, and the Finance Committee recommended the dropping of the estimated expenditure of £6,000 on the bathing bungalows and spending of £1,570 on the Floral Hall enlargement and the new cafe.

ILFORD.—The T.C. passed plans: J. T. Luton & Son, factory and store, Hopkin & Williams, Ltd., Uphall-road; A. Smith, 36 houses, 1–11 and 2–12, Gosford-gardens, 53–75, Somersby-gardens, 15–37, Redbridge-lane; P. E. Brand, five houses, 31–35, Southdene-gardens, Eastern-avenue; Haines & Warwick, 34 houses, 2–34, Leicester-gardens, 29–61, Downshall-avenue; Haines & Warwick, eight houses, 3–17, Vicarage-lane; A. P. Griggs, amended plan of houses, 34–92, Cranbrook-rise; A. J. Jennings, house, 11, North View-gardens, New North-road; G. H. Stickland, two houses, 114–116, St. Mary's-road; Baskett & Brown, 14 houses, 1–27, Downshall-avenue; J. W. Davies, 59 houses, 285–305, and 284–314, Henley-road, 281–311 and 286–316, Mortlake-road; J. W. Moore & Sons, three bungalows, 1–5, Capel-gardens; W. J. Cearns, lock-up garages, Eastern-avenue, rear of "The Bury," Aldborough-road; L. Dullforce, lock-up garages rear of Swiss Cottage, Vicarage-lane; P. Triplete, 14 houses, 2–28, Clifton-road; J. Aldridge, five shops and dwellings, Cranbrook-road, corner of Ickneild-drive; P. E. Brand, 14 houses and shops, 5–18, Brands Corner, Jerrold-avenue; H. Warren, lock-up garages, Little Newbury, Ley-street; P. Triplete, 30 houses, 4–62, Devonshire-road; F. S. Russell, six houses, 100–110, Hamilton-avenue.

KEIGHLEY.—Plans have been approved for a new slaughter-house at Sandbeds, for Mr. Waddington.

KENDAL.—The Housing Committee has been instructed to formulate a scheme for the erection of 100 houses.

LEATHERHEAD.—The Council has approved the following plans: Twelve bungalows in Harriotts-lane, for Burton's (Builders), Ltd.

LEICESTER.—St. Mary's Church, Leicester, is being largely altered and enriched in preparation for becoming the Cathedral for the new Diocese of Leicester.

LITTLEBOROUGH.—The District Council are seeking the sanction of the M.H. for the erection of an additional 100 houses.

LIVERPOOL.—The Board of Education have approved the plans for the rebuilding of the Warrington Training College on a site at Wavertree.

LONDON.—The L.C.C. has sanctioned expenditure as follows: Provision of extra accommodation and execution of alterations to existing buildings in the storeyard on the Victoria Embankment at Charing Cross, £450; repairs to Hammersmith Bridge, £100; repairs to ballast walls of Wandsworth Bridge, £250; £130 for the external painting of Coroners' Courts.

LONDON (BATTERSEA).—The B.C. has received the M.H. sanction for the erection of the fifth block of six dwellings on the south side of Britannia-place, at £3,838 12s. 6d.

LONDON (CITY).—The Corporation recommend the reconstruction of the underground convenience in St. Martin's-le-Grand, rendered necessary by the widening of the thoroughfare, and has approved the sum of £5,000 for the work.—The roof lights of the underground convenience in Cannon-street are to be repaired at a cost of £200.

LONDON (DOWNHAM).—Twelve shops are to be erected on the L.C.C.'s Downham estate, Bromley.

LONDON (ELTHAM).—The L.C.C. recommend that consent be given for the erection of a building upon a site at the junction of Eltham-road and Eltham By-pass, Eltham, submitted with the application of Cory Bros. & Co., Ltd.

LONDON (GREENWICH).—A firm which had tendered for the construction of public baths at Greenwich, at a cost of £116,145, asked the Borough Council for permission to cancel their application as they stated they could not carry out the contract at the price. The Council have had, as a consequence, to give the contract to the next lowest tender, which was, however, £5,763 higher.

LONDON (HACKNEY).—The B.C. recommend that the sum of £1,266 be borrowed from the L.C.C. for a site for a sub-station on land at the rear of 114, Stamford Hill.

LONDON (KENSINGTON).—At a cost of £315 an external staircase and other work is to be provided at Leighton House.—The B.C. recommend a scheme, to cost £451,550, for the improvement of Kensington High-street between Young-street and the Metropolitan Railway Station. The Council propose to contribute £150,517.—The Council has considered a notice from the L.C.C. of an application made to them for permission to erect lock-up garages at the rear of 132–142, Highlever-road, upon a site approached from Dalgarno-gardens and Highlever-road.—Plans passed: Buildings at Blundell House, Campden Hill.

LONDON (LEWISHAM).—The B.C. recommend that a convenience for both sexes be erected in The Avenue, Blackheath, in accordance with the plan prepared by the Borough Surveyor, and that tenders be invited for the erection of the building. This work is estimated at £800.—It is also recommended that a sanitary convenience for both sexes be provided on a site at the south-east corner of the Hither Green library premises with a frontage to Sandhurst-road in accordance with the plan and specification prepared by the Borough Surveyor. Tenders are to be invited.—The B.C. has passed plans: S. C. Turner, house, Longton-avenue; G. W. Crosby, three houses, Baring-road; J. Mockford, two houses, Ravensbourne-avenue.

LONDON (STEPNEY).—The Borough Surveyor and Engineer of the B.C., has prepared alternative plans for the utilisation of land in Bell-lane and White's-row, by the erection of three flats with similar accommodation above.—The Council are to acquire the freehold of 10, 11 and 12, Milk-yard, for housing purposes.

LONDON (WANDSWORTH).—The B.C. passed plans: T. Brown & Son, schoolkeeper's house, Furzedown-Training College, Welham-road, Streatham; W. Doddington, Sunday school, Courland-grove, Clapham North; J. R. Vining, garages at 28 and 30, St. John's-road, Putney; G. Mayhew, 17 garages and a shed on land at rear of houses Franche Court-road, Springfield; W. Cook, four houses, Sternhold-avenue, Streatham; H. J. May, eight houses on site adjoining "Park View," Kingston-road, Putney; E. Clarke & Sons, 16 houses, Beclands-road, Streatham; W. Cooke, five houses, Granville-road, Southfield; Negus, Ltd., five shops, Streatham High-road, at junction of Penistone-road, Streatham; W. Gritton, five houses, Nightingale-lane, Balham; A. Monk, extension to the Home for Aged Jews, Nightingale-lane, Balham; J. S. Quilter & Son, 25 houses, Valley-road, Streatham; W. G. James, two houses on site adjoining 85, Pirbright-road, Southfield; L. & W. Whitehead, Ltd., Balham Railway Station, City & South London Railway, at junction of Station-road and Balham High-road (amended notice); F. H. Hooper, nine houses, Atkins-road, Clapham South; Humphreys & Allen, five houses and garages junction of Brudenell-road; A. Soden, six houses, Drewsted-road, Streatham; F. H. Hooper, 16 houses in New-road and 18 houses and garage in Thornton-road, Clapham South; Marcus Estates, Ltd., billiard hall, shops and flats, 191 to 195, Balham High-road; W. G. James, garages, Pirbright-road, Southfield; F. H. Hooper, 11 houses Thornton-road, Clapham South; W. Gritton, five houses, Nightingale-lane, Balham; J. S. Quilter & Son, 15 houses, Valley-road, Streatham; A. G. Jenkins, six houses in Melrose-road and two houses in Gressenhall-road, Southfield; The Collett Building Co., Ltd., 10 houses in Poynders-road, Clapham South; R. H. Miller & Son, Ltd., 20 houses, road No. 9, 34 houses, road No. 10, 98 houses, road No. 11, 36 houses, road No. 13, and 45 houses, road No. 14, Crooke-Ellison Estate, Streatham; G. H. Thorne, house on site adjoining 19, Birchwood-road, Streatham; Marcus Estates, Ltd., two houses on land at rear of 32 to 44, Upper Tooting-road, Balham; H. Jay, bungalow, Viewfield-road, Southfield; A. L. Abbott, house, 22, Victoria-road, Southfield; H. Macintosh, house on plot adjoining "Redcroft," Westdrive, Streatham; W. Willett, Ltd., (i) house on plot adjoining "Lyndhurst," Highdown-road, Putney, (ii), house on site in Dover Park-drive, abutting on Putney Park-lane, Putney; H. Dakin & Co., Ltd., house on site adjoining 23, Luttrell-avenue, Putney.—The B.C. has received sanction to borrow £3,252 for the erection of six flats at Southfield.

LONDON (WIMBLEDON).—The B.C. passed plans: W. H. Brown (Leatherhead), Ltd., house, 13, Ernle-road, at the corner of Woodhayes-road; T. A. Broughton, 11 lock-up garages at the rear of 156, Queen's-road; J. S. Brocklesby, house and garage in Conway-road; W. H. Whitehead & Co., house, 2, Hunter-road, at the corner of Conway-road.

LYMM.—The D.C. are to negotiate for land in Whitbarrow-road for the erection of a further 20 houses.

MABLETHORPE.—The U.D.C. has received the M.H. approval for the preparation of a town-planning scheme. In the preparation of the scheme provision is to be made for an area to erect boarding houses which shall be limited to eight per acre, and for private houses eight to twelve per acre.—Plans passed: Bungalow and garage, Church-road, Mablethorpe, for T. Tebb; bungalow, Station-road, Sutton, for Mr. Walshaw; bungalow, Grove-road, Sutton, for Mr. Oakesford; house for H. Waller, Victoria-road, Mablethorpe; bungalow, Trusthorpe, for G. Saywell; house, St. Andrew's-road, Mablethorpe, for A. Bush; bungalow, George-street, Mablethorpe, for Mr. Bolton.

MANCHESTER.—Plans approved by the Corporation: Beswick Co-op., house to dairy, Bosworth-street, Openshaw, A. W. Walsingham, architect, 62, Market-street; W. H. Snow, 36 houses, Sark-road, Kensington-road, and Copley-road, Chorlton-cum-Hardy; J. Lane & Sons, 16 houses, Withington-road, King's-road and Dalmorter-road, Chorlton-cum-Hardy, G. Westcott, architect, 13, Bridge-street; J. Lewis, nine shops and houses, lock-up shop and showroom, Wilmslow-road, Fallowfield, H. V. Newsome, architect, Blue Boar-court; United Cattle Products, Ltd., revised plans of foundations to offices, tripe works, Russell-street, and Stanley-street, Levenshulme, Wrathmell & Blackshaw, architects, Stockport; Threlfall's Brewery Co, Ltd., Anson Hotel, Beresford-road, Duncan-road, and Farrar-street, Rusholme; Yorkshire Insurance Co., revised plan of offices, Cross-street, Town Hall-lane and Tib-lane, Oakley & Sanville, architects, 60, King-street; A. Hartley & Son, 252 houses, Parsonage-road, Fairholme-road, Ashdene-road, Brookleigh-road, Hatherley-road, Parr's Wood-road, Haslemere-road, Hartswood-road, and Schoolgrove, Withington, Mellor, Speakmann & Hall, architects, 1, Cooper-street; Rev. A. L. Robinson, Sunday school, Zeta-street and Amos-street, Moston, R. Martin, architect, 90, Deansgate; S. Patterson, 17 houses, Hewlett-road and Sibson-road, Chorlton-cum-Hardy; J. Lane & Son, Ltd., 42 houses, King's-road, Chatburn-road and Wyverne-road, Chorlton-cum Hardy, G. Westcott, architect, 13, Bridge-street; C. Makintosh & Co., sub-station and canteen to a mill, Cambridge-street, Chorlton-upon-Medlock, A. Lakemann, architect, Cambridge-street; E. Cohen and others, details of reinforced concrete, &c., to Imperial Buildings, Oxford-road, C. Swain, architect, 12, Exchange-street; B. Bradley, office, Blind-lane, Ardwick, T. Campion & Sons, architects, Devonshire-street; J. Egan & Co., warehouse, Redgate-lane and Charlotte-street, West Gorton, G. Westcott, architect, 13, Bridge-street; The Governors Manchester High School for Girls, pavilion and dressing-rooms to playing fields off Lytham-road, Rusholme, B. Morton & Sons, architects, 78, Quay-street; L. Dobson, Ltd., house and 14 lock-up garages, Peaceville-road and Kingsmere-avenue, Rusholme, F. Fenn, architect, 1, North-parade; Winders & Tindale, 33 houses, Longton-avenue and Palatine-road, Withington; A. B. Tattersall, 22 houses, Aldermary-road and Callingdon-road, West Didsbury; Chorlton Land and Building Co., four houses, Newport-road, Ryebank-road and Longford-road, Chorlton-cum-Hardy; Gill & Pain, 22 houses, Clarence-road, Sark-road and Polruaj-road, Chorlton-cum-Hardy, T. H. Patching, architect, 85, Bridge-street.

MANSFIELD.—Donations amounting to £15,000 have been made by two local colliery companies to carry out extensions at the hospital.

MIDDLETON.—The Borough Surveyor reported at the meeting of the Corporation that the scheme for 158 houses to be erected at Boarshaw was in course of preparation. It is proposed to complete the St. Michael's Church at Tonge by the erection of a tower estimated to cost £6,300

NEWCASTLE-UNDER-LYNE.—The T.C. has resolved that the Town Clerk be instructed to make application to the M.H. for sanction to the borrowing of the sums of £1,600 in respect of the hot-water installation in the 96 non-parlour houses, and the additional six non-parlour houses, to be erected on the Liverpool-road site, and £7,000 in respect of the erection of a further eight parlour and six non-parlour houses on the Liverpool-road site.

NEWHAVEN.—The General Purposes Committee of the U.D.C. recommended (1) that five pairs of houses, non-parlour type, type B, should be erected out of the 41 houses proposed to be erected by the Council. The surveyor is to prepare plans and specifications, and submit them to the M.H. for approval.—The committee reported the receipt of a letter from the M.H. approving of the purchase of land in Gibbon-road and Elphick-road for the housing sites.

NORTON.—The West Riding C.C. recommend the provision of additional school accommodation at the Church Mission Room.

OLDHAM.—The C.B. has passed plans: W. T. Hague, house, Grange-avenue; E. Gartside & Sons, eight houses, French-avenue.

OSWALDTWISTLE.—A proposed electricity sub-station in Brook-street, for the Accrington Corporation, has been sanctioned by the Council.

OXFORD.—The T.C. recommend the reconstruction of 60, St. Aldate's, and a new classroom at the South Oxford Council Girls' School.—Application is to be made to the B.E. and the M.H. for a loan of £10,967 for buildings (in accordance with the tender accepted by the E. Committee and the City Council).—It is also recommended that the extension of the St. Giles' public convenience be proceeded with and that the City Engineer's sketch plans be received and that he be instructed to prepare and submit detailed plans.—Plans passed: Mrs. Macdonell, house and garage, Belbroughton-road, and J. E. Tyler, house, Harley-road.

PETERBOROUGH.—The T.C. has decided to make application to the M.H. for sanction to borrow £33,110 to defray the cost of the erection of the 77 houses.

PRESTON.—The Town Council have approved the lay-out plans for the erection of 144 houses at Callon House Farm, Fishwick. The Lancashire Higher Education Sub-Committee propose to borrow £23,612 for extensions to Ormskirk Grammar School. The Elementary Education Sub-committee proposes to erect a new school for about 200 children, near Hesketh Bank Station.

RAMSBOTTOM.—The managers of St. Joseph's Roman Catholic School have submitted plans for a new voluntary school on the Queen-street site.

RAMSGATE.—The Council is promoting a Bill to purchase the harbour station site on the sea front.

REIGATE.—The T.C. passed plans: W. Farmer, bungalow, Althorne-road, Redhill, for Miss J. L. Aylesbury; T. R. Hooper, bungalow, Hold-road, Redhill, for S. H. Appleby; W. Brown, house, London-road, Redhill, for E. G. Linter; T. Bushby & Son, Ltd., house, Evesham-road, Reigate; W. Farmer, house, North Albert-road, Reigate, for A. A. Morris; Newton Green & Son, house, Ladbroke-road, Redhill; W. Farmer, amended block plan of Sports Pavilion at White Bushes, Redhill, for H. Habgood.

ROCHDALE.—The E.C. has inspected several sites at Norden for the erection of an elementary school. Plans have been approved for a new school to be built at Whitworth.

SADDLEWORTH.—The West Riding C.C. recommend the rebuilding of the burr and fence wall at Laceby, at a cost of £550.

ST. ALBANS.—The M.H. has held an inquiry into the petition of the City Council for the issue of an order confirming a scheme for the improvement of areas.

SCARBOROUGH.—The Borough Engineer has submitted a plan of a suggested site near Scalby-road for the erection of a hospital.

SHEFFIELD.—The T.C. are considering the future of the City's market. Several schemes are a-foot, but one scheme involves the disposal of the site at the top of Haymarket.—The Higher E.C. propose to invite tenders for the adaptation of the domestic science college buildings for use as a school clinic, at an estimated cost of £1,210. A new school for mentally defective boys is to be erected at Northfield-road, at an estimated cost of £6,961.

SHERBURN.—The R.D.C. has instructed the clerk to negotiate regarding the price of the proposed site for 12 houses at Sherburn.

SITTINGBOURNE.—The U.D.C. has received from the M.H. approval of the scheme for the erection of 20 houses at Bell-road, and the acceptance of a revised tender of £10,930.

SLOUGH.—Plans passed by the U.D.C.: House in Upton-road, for B. Humphrey; house in Stoke-road, for Mr. Gray.

SOUTH HIENDLEY.—The West Riding E.C. has approved the tenders for the new school, at a cost of £8,156.

SOUTHGATE.—The U.D.C. passed plans: F. J. C. Ingram, eight houses, Ecclesbourne-close; C. D. Williams, six houses, Hoodcote-gardens; C. E. Matthews, 16 houses, corners of Grenoble-gardens, Upadell-avenue and Berkshire-gardens; C. L. HAITLEILE, three houses, Powys-lane; G. W. S. Ingram, two houses, Woodland-way; G. W. S. Ingram, two houses Woodland-way; F. F. Tomlin, four houses and two garages, Limes-avenue; G. Taft, house, Avondale-road; Edmondsons, Ltd., house, 32, Meadway; C. S. Brown, new roads and sewers, continuation of Evesham-road, Shrewsbury-road, Maidstone-road, and Tewkesbury-terrace; F. Love, two houses, Avenue-road; C. E. Hartshorne, 19 garages and workshops, Union-road.

SOUTH KIRKBY.—The West Riding E.C. propose to provide further school accommodation for 400 children.

SOUTH SHIELDS.—The T.C. has approved plans: J. H. Morton & Son, for T. B. Carr, proposed public hall, Victoria-road and Alfred-street; H. Hill, for J. T. Armstrong & Son, 22 houses, Harton-lane.

SPALDING.—The Holland C.C. has received the M.T. sanction for a contribution of £19,8.2 towards the cost of the new road and bridge.

SPENBOROUGH.—The surveyor is instructed to prepare plans and specification in connection with the proposed erection of 116 houses.

SQUIRRELS' HEATH (ESSEX).—The Parochial Church Council has approved plans for a new hall adjoining the church, which will cost about £700, and will accommodate 250 people.—The Rev. M. Peters is also pressing forward with the scheme for raising £650 to complete the purchase of the site for a new church in the main road.

SUTTON.—The U.D.C. passed plans: House, The Downsway, for Miss M. J. Polson; two houses, Pelton-avenue, for W. A. Peacock; house, Grennell-road, for A. H. Lovatt; two houses, Oakhill-road, for J. Richardson; four houses, Benhill-road, for A. L. M. Dorrell.

SWANSEA.—Tenders are to be invited by the C.B. for repairs and painting the iron and woodwork of the abattoir and cattle market.—The Borough Architect reported as to the erection of a further 100 houses on the Mayhill portion of the site by direct administration, and the C.B. has resolved that application be made to the M.H. for formal sanction to the erection of the houses and also for sanction to borrow the sum of £49,010 required for the work.—The Borough Architect is to repaint and redecorate the existing offices at £130, and provide additional two rooms for £325, at the Water Engineer and Manager's Offices.—The C.B. has resolved that the Health Committee be strongly recommended to proceed with the provision of a better public convenience at Oxford-street.

TENTERDEN.—A site has been obtained for the erection for the Catholics of a church.

THORNABY.—The M.H. has given the T.C. approval to erect 110 houses on ten acres of land at Old Thornaby, and sanctioned the borrowing of £40,870 for the building, £3,585 for the construction of roads, and £1,300 for sewers.

THORNE.—The West Riding E.C. recommend that the action taken in purchasing an army hut from the agents to the West Riding Territorial Association at a cost of £225 be approved, and that the hut be transferred to, re-erected and adapted as a temporary school at Thorne, at an estimated cost of £1,250.

TONBRIDGE.—The U.D.C. has decided to purchase 3¾ acres on the Hectorage estate for 40 houses.

WAKEFIELD.—The West Riding C.C. recommended that the architect be instructed to carry out repairs, renovations, &c., at Bishopgarth, at an estimated cost of £177 19s. 11d.

WELLBURN (CASTLE HOWARD).—A site has been given upon which it is proposed to erect a village hall, at an estimated cost of £750.

WILLESDEN.—The Middlesex C.C. has asked the U.D.C. to postpone the acceptance of tenders for the erection of a smallpox hospital at Kingsbury, through the letter they have received from the M.H. in which he said that the Clare Hall Hospital, belonging to the Middlesex District Joint Smallpox Board, is not suitable for the treatment of smallpox, and asks the C.C. to consider the question of becoming the Smallpox Authority for the County, with possible exception of the Borough of Ealing and the Urban District of Willesden, but the Willesden U.D.C., after careful consideration, recommend the erection of the Hospital.—The General Purposes Committee recommend that land with frontage to Brentfield-road, to a depth of 100 ft., be appropriated by the Housing Committee for the erection of houses or flats, and also land between the east side of Bridge-road between that road and Church-brook, be also given for housing purposes. There is a further small triangular area of land, opposite the North Metropolitan Electric Power Supply Station, and fronting Gibbons-road, which the Committee recommend should be earmarked as a factory site.—Application is to be made to the M.H. for sanction to borrow £22,150 for the erection of the smallpox hospital.—New plans are to be prepared for the extension of the Kensal Rise library.—Plans passed: 22 houses, Codrington-road, Cricklewood, for F. Walters, Ltd.; four houses, 3, 5, 7 and 9, Donnington-road, Willesden, and 17 houses, 228 to 260, inclusive, All Souls'-avenue, Willesden, for George Ball (Willesden), Ltd.; 40 houses and 10 garages, Gladstone Park-gardens, three houses, Parkside-road, Cricklewood, for Mr. F. W. Brealy; 30 houses, 27 to 85 (inclusive), Burnley-road, Willesden, for Pearce & Taylor; two houses, 25–27, Aylestone-avenue, Brondesbury Park, by F. Stanley Allen, for Messrs. Western & Arnell; new lavatories, Rolls Razor factory, Cricklewood Broadway, by H. R. Bence & Son, for the Rolls Razor Co.

FIRE.

LONDON.—The chemical works of Fox, Stockell & Co., brokers and merchants, situate on the Thames riverside at Cubitt Town, was practically burned out. The damage to the buildings is estimated at £60,000.

(*Continued from column 3.*)

The scheme is estimated to cost £20,000. Mr. H. Kenchington, of 44, Bedford-row, W.C.1, is the architect. The building contract is not yet settled.

Whitehall.— EXCHANGE. — Messrs. Knight, Frank & Rutley, on behalf of Lloyds Bank, Ltd., have sold Harrington House and 2, Craig's-court, S.W.1, to the Government. It is understood that the site has been acquired for the erection of the new Whitehall Telephone Exchange.

Zoological Gardens. — BUILDING. — A new monkey house is being built at the Zoological Gardens, for which the foundation stone has been laid. The work is being carried out for the Zoo authorities by Messrs. Prestige & Co., Ltd., builders, Grosvenor-road, S.W.1. Mr. E. Guy Dawber, P.R.I.B.A., 18, Maddox-street, W.1, is the architect.

NEW BUILDINGS IN LONDON

Agar-street. — STORE. — St. Mary's Wharf Cartage Co., Ltd., of Paddington, have just carried out the demolition work in Agar-street for the erection of a new store, for the Civil Service Supply Association. Messrs. Herbert O. Ellis & Clarke, architects, 3, Old Queen-street, S.W.1, have prepared the plans.

Cockspur-street. — PREMISES. — Demolition work is now being carried out for the new premises to be erected in Cockspur-street, W.C.2. Messrs. Trollope & Colls, builders, 5, Coleman-street, E.C., are doing the excavation work. The architect for the scheme is Mr. Septimus Warwick, F.R.I.B.A., of 13, Somers-place, Hyde Park, W. 2.

Downham. — HOUSES. — The Lewisham Borough Council has approved plans submitted by Mr. J. G. Stephenson, on behalf of the London County Council, for the erection of 257 houses and a school on the Downham estate.

East Hill.—TENEMENTS.—The Wandsworth Borough Council has approved the plans for block 9, comprising 79 tenements and three shops, and block 10, comprising 81 tenements and four shops, on the London County Council estate, East Hill, Fairfield, for the County Council. Messrs. J. E. Billings & Co., Ltd., 56, Victoria-street, are the builders. The plans have been prepared by the London County Council architect, Mr. G. Topham Forrest, F.R.I.B.A., New County Hall, Westminster Bridge, S.E.1.

Lewisham.—HOUSES.—A start is about to be made by Messrs. T. H. Sawyer & Son, Ltd., builders, of Roxley-road, S.E. 13, on the erection of twenty-seven houses in Ermine-road, and fifteen in Vicar's-hill. The plans have been prepared by the builders.

Merton-road.—FLATS.—A block of six flats is to be built on a site at the junction of Merton-road and Buckhold-road, Southfield. Mr. G. L. Elkington, of 7, Laurence Pountney-hill, Cannon-street, E.C., is the architect.

Pine-street. — CENTRE. — The Finsbury Borough Council are having a maternity centre built in Pine-street, Clerkenwell. The foundation stone has already been laid. Mr. E. Stanley Hall, F.R.I.B.A., of 54, Bedford-square, W.C.1, is the architect, and Messrs. Chessums, Ltd., Imperial Works, Portland-road, Tottenham, N.15, are the builders.

Streatham.—HOUSES.—Mr. S. Boothman, of Abbotsleigh-road, S.W. 16, has had plans sanctioned for the erection of eighteen houses in Ellison-road and one in Guildersfield-road, Streatham.

Surbiton.—CONVERSION.—A large mansion, known as "The Gables," built in 1878 for Mr. Bryant (of Bryant & May), was recently bought for the accommodation of twenty-four students and the staff of the Working Women's College. A further wing is to be added, containing sixteen studios and a flat for the principal. This will be connected with the existing buildings by a bridge. The architect for the alterations and for the new wing is Mr. Douglas Wood, F.R.I.B.A., of 35, Craven-street, W.C. 2.

Wardour-street.—RESTAURANT.—Plans submitted by Messrs. J. Lyons & Co., Ltd., for a new building on the site of 54, 56 & 58, Wardour-street and 11, Little Dean-street, to the Westminster City Council have been generally approved. Mr. Delissa Joseph, of 2, Basinghall-street, E.C. 2, is the architect.

Wandsworth High-road.—RE-BUILDING.—The "Rose and Crown" public house in Wandsworth High-road is being re-built for Messrs. Watney, Combe, Reid & Co., Ltd. Mr. G. G. Macfarlane, of Messrs. Watney, Combe, Reid & Co., Ltd., is the architect, and not Mr. G. J. Macfarlane, of 73, Gower-street, W.C. 1, as stated in our last issue.

Wembley.—HOSPITAL.—Sir John Rose Bradford, President of the Royal College of Physicians, has laid the foundation stone of a hospital to be erected at Wembley by public subscription.

(*Continued at foot of second column.*)

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 5 6
Second Hard Stocks	3 19 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs	9 5 0
Do. grooved for Plaster	2 15 3	Do. Bullnose	9 15 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 5 0
Best Stourbridge Fire Brick :—			
2½in.	8 11 0	3in.	10 3 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	23 0 0	D'ble Str'tch'rs	31 10 0
		D'ble Headers	28 10 0
		One Side and two ends	32 10 0
Headers	22 10 0	Two Sides and one End	33 10 0
Quoins, Bullnose and 4½in.		Splays and Squints	31 0 0
Flats	29 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2in. per yd. super	1 11	3 in. per yd. super	2 9
2½in. " "	2 4	4 in. " "	3 6

	s. d.		
Thames Ballast	10 6	per yd.	delivered 2 miles radius Paddington.
Pit Sand	13 9	" "	
Thames Sand	14 6	" "	
Best Washed Sand	14 6	" "	
½in. Shingle for Ferro-Concrete	12 9	" "	
¾in. "	14 0	" "	
½in. Broken Brick	11 6	" "	
Pan Breeze	7 6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test £3 8 0 to £3 13 6 6ls. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 10 0
Super Cement (Waterproof)	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	3 0 9
Chalk Lime	3 0 9
Best Ground Blue Lias Lime	2 13 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE—	
Delivered at any Goods Station, London.	s. l.
Random blocks from 10 ft. and over P. ft. cb.	17 0
Sawn two sides "	27 0
Sawn three or four sides "	32 0
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per ft. super	5 6
6 in. rubbed two sides, ditto "	6 0
3in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in. ditto, ditto "	1 4
HARD YORK—	
Delivered at any Goods Station, London.	
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto ditto "	2 1½
2 in. self-faced random flags Per yd. super	9 0

CAST STONE.

Delivered in Town Area in full van loads, per ft. cube :—Plain, 8s. 6d.; Moulded, 9s. 6d Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£28 0	3 × 6	£21 0
4 × 9	25 0	3 × 11	25 0
4 × 8	24 0	2 × 11	25 0
4 × 7	23 0	3 × 9	24 0
3 × 8	21 0	2½ × 9	23 0
3 × 7	20 0	3 × 4½	22 0
2½ × 7	20 0	3 × 4	22 0

PLANED BOARDS.

1 × 11	£27 0	1 × 9	£26 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	20/-	1¼	31/-
¾	22/-	1½	34/-
1	25/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	25/-
1¼	31/-
1½	34/-

MATCHING (BEST).

Inches.	per sq.
¾	16/6
¾	19/-
1	24/-

BATTENS.

Inches.	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle	0 2 4

1" AND UP THICK.

	£ s. d.	£ s. d.
Dry Austrian Wainscoat, per ft. cube	0 16 0 to	0 18 0
Dry American and /or Japanese Figured Oak, ft. cube	0 15 0 to	—
Dry American and/or Japanese Plain Oak, ft. cube	0 11 0 to	0 13 0
Dry sq. edged Honduras Mahogany, ft. cube	0 16 0 to	0 18 0
Dry Log cut Honduras Mahogany, ft. cube	0 18 0 to	1 1 0
Dry Cuba Mahogany, ft. cube	1 4 0 to	1 10 0
Dry Teak, ft. cube	0 13 0 to	0 15 0
Dry American Whitewood, ft. cube	0 11 0 to	0 14 0
Best Scotch glue, per cwt.	4 10 0 to	—
Liquid Glue, per cwt.	4 7 0 to	5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Delivered at London rate stations in full truckloads of not less than 4 tons. Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 12 6
Ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Hip and valley tiles (per dozen) Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	12 0 0	⅝ in. to ¾in	10 15 0
½ in.	11 0 0	¾in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Black Gas	60 %	50%	60%
Galvanised Gas	45 %	40%	50%
Blue Water	55 %	45%	55%
Galvanised Water	38½%	35%	45%
Red Steam	50 %	40%	50%
Galvanised Steam	32½%	30%	40%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/3½	11½d	3½d.
3½ in.	1/4½	1/1½	3½d.
4 in.	1/6	1/3	3½d.
4½ in.	1/7½	1/4½	4½d.
5 in.	1/10½	1/6½	5½d.

O.G. GUTTERS.

3 in.	1/8	1/4½	3½d.
3½ in.	1/8	1/4½	3½d.
4 in.	1/9½	1/4½	3½d.
4½ in.	1/11½	1/7½	4½d.
5 in.	2/4½	1/10½	5½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/10½	1/3	1/9½
2½ in. "	2/0½	1/4½	2/1½
3 in. "	2/6	1/9	2/7½
3½ in. "	2/11½	2/0½	3/0½
4 in. "	3/5	2/6½	3/8½

L.C.C. COATED SOIL PIPES—London Prices, ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	3 3	2 4½	2 10
2½ in. "	3 9	2 7½	3 7
3 in. "	4 6	2 10	4 2½
3½ in. "	4 11½	3 7	4 11½
4 in. "	5 5½	4 0½	5 9

L.C.C. COATED DRAIN PIPES—London Prices ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9 ft. lengths	4 4	5 1	8 0½
4 in. " "	6 2	5 8	10 0
5 in. " "	7 2	10 1½	17 1
6 in. " "	8 6	13 2	21 9

Gasken for jointing, 38/6 per cwt.

IRON—	Per ton in London. £ s. d.	£ s. d.
Common Bars	12 0 0 to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 5 0	15 5 0
Staffordshire Marked Bars	16 5 0	17 5 0
Mild Steel Bars	10 0 0	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	11 0 0
Hoop iron, basis price	12 0 0	13 0 0
" Galvanised	27 0 0	28 0 0
Soft Steel Sheets, Black—		
Ordinary sizes to 20 g.	13 5 0	14 5 0
" " " 24 g.	14 5 0	15 5 0
" " " 26 g.	16 5 0	17 5 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 10 0	16 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 10 0	17 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 10 0	20 10 0
No. 1 quality £4 per ton extra.		
Flat and Galvanised Corrugated Sheets—		
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	18 10 0	19 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	19 0 0	20 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	22 0 0	23 0 0
Sheets Galvanised Flat. Best quality—		
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	22 0 0	23 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 0 0	26 0 0
Best Soft Steel Sheets, 26 g.	25 10 0	26 10 0
Cut Nails, 3 in. to 6 in.	19 0 0	20 0 0
(Under 3 in. usual trade extras.)		

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	43 0 0
Pipe in coils	44 10 0
Soil Pipe	46 10 0
Compo Pipe	47 10 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	28 0 0	—
Do., ex country, carriage forward per ton	29 0 0	—

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	1 1
Strong sheet "	1 0
Thin "	1 1
Copper nails "	2 3
Copper wire	2 4

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1½ in.	1¼ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1¼ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- "

TIN—English Ingots, 2/10 per lb. SOLDER—Plumbers' 1/3, Tinmen's 1/6, Blowpipe 1/7 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil,	in pipes per gallon	0 3 2
" " "	in barrels "	0 3 3
" " "	in drums "	0 3 5
Boiled " "	in barrels "	0 3 5
" " "	in drums "	0 3 8
Turpentine	in barrels "	0 5 3
"	in drums (10 gall.) "	0 5 5
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		51 15 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered		76 5 0
Red Lead, Dry (packages extra)	per ton	44 0 0
Best Linseed Oil Putty	per cwt.	0 15 0
Filocol	"	0 15 6
Size. XD Quality	"	0 3 6

Continued on next page.

*The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*).

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths ..	3d.	32 oz. fourths	7½d.
15 ,, thirds	4½d.	32 ,, thirds	9½d.
21 ,, fourths ..	4½d.	Obscured Sheet, 15 oz...	8d.
21 ,, thirds	5½d.	,, ,, 21 ,, ..	5½d.
26 ,, fourths ..	5d.	Fluted 15 oz. 6½d., 21 oz.	9½d.
26 ,, thirds	7½d.	En'lled 15 oz. 5½d., 21 oz.	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4d.
⅜ Rough rolled	5½d.
¼ Rough rolled	6d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White..	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted Do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	2	0
Best ditto	ditto	1	12	0
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	6
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	6
Berlin Black		0	14	6
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebine		0	9	0
Cuirass Black Enamel		0	7	0

TRADE NEWS

Wood-block Flooring.

We understand that 735 sq. yards of wood-block flooring were laid in the Wandsworth Technical Institute by Messrs. Zeta Wood Flooring Company (1910), Ltd., of Essex House, Stratford. This company has in the past laid successfully the flooring for about 150 schools for the London County Council.

Asphaltic Slag Manufacture.

Messrs. William Shepherd & Sons, of Rochdale, whose "Asphaltic Slag" is being used extensively for roadwork, have made arrangements for this product to be manufactured and supplied by Messrs. Wake & Co., Ltd., Port Clarence, near Middlesbrough, whose works are now under Messrs. Shepherd & Sons', Ltd., control. "Asphaltic Slag" will also be obtainable as before from their three Shropshire works and from their London depot at Acton.

Columbian Pine Doors.

A well-produced catalogue, illustrating their attractive "Metco" doors in various kinds of woods and designs, has been brought out by The Merchant Trading Co., Ltd., of Cunard Building, Liverpool. The manufacturers will gladly send a copy of this catalogue to all architects and builders who are interested.

Rubber Carpets.

Messrs. The Leyland & Birmingham Rubber Co., Ltd., of Leyland, illustrate in colour several examples of their rubber stair carpets in an attractive booklet just issued. The booklet will be sent to contractors and others interested upon request.

Smithfield Show, Royal Agricultural Hall.

Messrs. Tangyes, Ltd., have advised us that their stand at the above show will be No. 19, and among the items comprising their exhibit will be: One 14 b.h.p. fuel-oil engine, lamp starting type, one 22 b.h.p. fuel-oil engine, cold starting type, one 5½ b.h.p. vertical petrol engine on skids, one 4 in. Tan-gyro centrifugal pump, and seven new design vertical single ram pumps, while a collection of their well-known pulley-blocks, lifting jacks, &c., will also be on view.

NEW BUILDINGS IN SCOTLAND

New Stevenston.—SCHOOL.—Operations are likely to commence soon on the erection of the new Roman Catholic school, which will be built on a vacant feu behind the Primitive Methodist Church, having its main entrance from Woodside-street, at an estimated cost of £50,000, approximately. The school will accommodate from 600 to 800 pupils.

Renfrewshire.—HOUSES.—Plans passed by the Upper District: 53 terrace houses on new roads behind Williamwood-terrace, Netherlee, for Messrs. A. Mitchell & Son, Ltd., Cathcart.

North Berwick.—HOUSES.—A new housing scheme, to consist of twenty-four houses, has been decided upon by the Town Council, after consideration of a report by the Housing Committee regarding the provision of additional accommodation.

Glasgow.—EXTENSION.—The annual meeting of the Governors of Glasgow School of Art has been held, and Mr. John Keppie, A.R.S.A., F.R.I.B.A., has been re-elected vice-chairman. The Governors have had plans prepared for the utilisation of the property acquired in Renfrew-street, opposite the present main building, for an extension scheme. The scheme is estimated to cost a total of £35,000.

Annan.—HALL.—The congregation of the Parish Church approved plans for the erection of a new church hall, which were prepared by Mr. J. B. Gladstone, architect, the estimated cost of which is £2,000. The plans provide for a hall to accommodate 370 persons.

Falkirk.—HOUSES.—The Dean of Guild Court has passed plans for the erection of 218 houses for the Town Council, at an estimated cost of £82,000.

Auchterarder.—HALL.—Plans have been passed for the erection of a new hall at St. Andrew's U.F. Church. The plans comprise a large hall with balcony with accommodation for 300 people. The architects for the work are Messrs. Smart, Stewart & Mitchell, Perth.

Aberdeen.—HOSPITAL.—The foundation stone has been laid for the new Royal Aberdeen Hospital for Sick Children, to be erected on a site of 16 acres at Forresterhill, at a cost of £110,000.

Edinburgh.—PICTURE HOUSE.—The Edinburgh Dean of Guild Court has sanctioned the building of Leith Capitol Theatre at Manderston-street. It is to be a picture house with sitting accommodation for 2,500. Sixteen flatted villas are to be erected at Laverock Gardens.

Lanarkshire.—HOUSES.—The Middle Ward District Committee of Lanarkshire has agreed to sanction the borrowing of £50,000 to meet the cost of 110 subsidy houses, and £515,000 for the erection of 1,146 improvement scheme houses.

THE GYPSUM INDUSTRY IN WESTERN CANADA

THE High Commissioner for Canada in London has received from the Mines Branch of the Dominion Department of Mines at Ottawa an article prepared by Mr. L. H. Cole, of the Mineral Resources Division, and from this the following excerpts are taken:

"The gypsum industry in Western Canada has been showing steady improvement during the past year and a half, a development not entirely unexpected in view of increasing activity in the building trades. The demand for plaster board, gypsum blocks, and other specialised gypsum products is steadily increasing and the operating companies are increasing their production to meet requirements.

"An encouraging feature of the activities in this industry is the establishment of a good trade in gypsum plaster and plaster board between Canada and New Zealand with the prospects of the extension of this export trade to China, Japan and South Africa markets.

"The gypsum deposits of Canada have been described in Mines Branch Report No. 245, issued in 1913. Since its publication other deposits of gypsum, not described therein, have been discovered, including that at Mayook, on which production has begun, and it is apparent that Western Canada possesses gypsum resources to supply any required demand for home consumption or for export."

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons', Bricklayers', Plasterers'.
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/7	10½d. to 1/1
Airdrie	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3
Alexandria	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2½ to 1/3½
Arbroath	1/7	1/7	1/7	1/7½	1/7	1/7	1/5½	1/1½
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3
Bathgate	1/8	1/8	1/8	1/8½	1/8	1/8	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Coatbridge	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3 to 1/3½
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Dumfries	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Dunfermline	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Greenock	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/0½ to 1/3.
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/2
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkcaldy	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/8	1/8	1/8	1/9	1/8	1/8	1/6	1/0 to 1/3
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Motherwell	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3
Stirling	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Stirlingshire (Eastern District)	1/8-1/10	1/8 1/10	1/8	1/9	1/7	1/8	1/6½	1/3½
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 753.

CURRENT PRICES FOR BUILDING WORK IN LONDON

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	32	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	8	6
½ inch on flats in two thicknesses	" "	6	3
Angel fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9	
Do 20 in. × 10 in. Do. Do.	"	80	9	
Do. 24 in. × 12 in. Do. Do.	"	90	0	

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	0	
Do. joists	" "	5	6	
Do. roofs, floors, and partitions	" "	6	0	
Do. trusses	" "	8	6	

	¾"	1"	1¼"	2"
Deal rough close boarding per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

	¾"	1"	1¼"	1½"
Deal-edges shot per sq.		44/6	53/-	60/6
Do. tongued and grooved "		49/-	57/6	65/-
Do. matchings "	45/-	51/-		
Moulded skirting, including backings and grounds per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super.	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

	1½"	1¾"	2"
Two-panel square framed per ft. sup.	2/1	2/4	2/6
Four-panel Do. "	2/5	2/8	2/11
Two-panel moulded both sides "	2/8	2/11	3/2
Four-panel Do. Do. "	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

	1"	1¼"	1½"
Plain deal jamb linings framed per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers "	1/4	1/6	1/9
Add if cross-tongued "	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail: average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roof work	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	59	0
Do. Do. in flats	"	58	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service "	1/8	2/2	2/7	3/10	—	—
Do. soil "	—	—	—	—	—	6/9
Bends in lead pipe each	—	—	—	—	3/3	8/2
Soldered stop ends "	1/2	1/8	2/1	2/10	3/6	—
Red lead joints "	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints "	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws "	—	—	—	14/7	19/6	—
Bib cocks and joints "	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints "	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	4
Do. Do. Sirapite	" "	2	7
Do. Do. Keen's	" "	3	7
Add sawn lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, &c., for suspended ceilings.)			
Portland cement screed	per yard sup.	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8½
26 oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	10½
¼ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

P. E. BRIANCE, LTD. (216,592). Registered October 2. To erect, re-build, alter and improve houses, flats, offices, shops, buildings or works of all kinds, and to carry on the business of builders, contractors, &c. Nominal capital, £2,500.

GEORGE PRINCE, LTD. (216,749). Registered October 11. 103, King Edwards-road, Birmingham. Plasterers, painters, decorators, &c. Nominal capital, £10,000.

J. R. OFFER & SON, LTD. (216,686). Registered October 7. 8, Church-street, Kingston-on-Thames. Builders and contractors. Nominal capital, £1,000.

WADE, ARCHER & Co., LTD. (216,658). Registered October 6. 117, Camberwell-road, S.E. 5. General builders, contractors, shopfitters, builders' merchants, house decorators, woodworke s, &c. Nominal capital, £500.

BROOKLANDS (ROMFORD) ESTATE CO., LTD. (216,693). Registered October 8. 85–87, South-street, Romford, Essex. Builders and land agents and owners. Nominal capital, £800.

MAY GURNEY & Co., LTD. (216,679). Registered October 7. Public works contractors and engineers. Nominal capital, £18,000.

J. C. EDWARDS (RUABON), LTD. (216,722). Registered October 9. Trefynant-works, Ruabon. Brick, tile, and terra-cotta manufacturers. Nominal capital, £65,000.

H. J. BRADLEY, LTD. (216,765). Registered October 11. Builders' merchants, builders, &c. Nominal capital, £1,000.

E. HALL, LTD. (216,893). Registered October 18. 32A, Coldharbour-lane, Brixton. Builders and general contractors, painters, &c. Nominal capital, £2,400.

LEPLEY & TOOVEY, LTD. (216,827). Registered October 14. 87, Larch-road, N.W. 2. Building and general contractors, &c. Nominal capital, £1,500.

G. E. POTTER, LTD. (216,925). Registered October 19. Burbank-street, West Hartlepool. Builders and contractors, slaters, tilers, &c. Nominal capital, £5,000.

W. E. SAYERS (PARKSTONE), LTD. (216,306). Registered September 18. Builders' merchants, manufacturers of concrete materials, &c. Nominal capital, £1,000.

BROADWAY ESTATE, LTD. (216,287). Registered September 18. 142, Poulton-road, Fleetwood. Builders, building contractors, &c. Nominal capital, £1,000.

HOME GARAGES, LTD. (216,939). Registered October 20. 11, Warwick-street, Regent-street, W. 1. Contractors for and designers and builders of motor garages, garage proprietors, &c. Nominal capital, £2,000.

APEONITE STONE CO., LTD. (216,931). Registered October 20. Artificial stone manufacturers, builders and contractors, builders' merchants, &c. Nominal capital, £3,000.

BOWDEN & WILLIS, LTD. (216,908). Registered October 18. 113, Rathbone-street, Canning Town, E. Builders and house decorators. Nominal capital, £2,000.

COPPICE HILL BRICK & TILE CO., LTD. (216,934). Registered October 20. Brick and tile manufacturers and builders' and timber merchants. Nominal capital, £7,000.

Proposed New Garden City, Dudley.

Dudley Town Council has purchased from the Earl of Dudley the Priory Estate of 521 acres for £77,500. The estate includes a mansion, the Priory Hall, where successive agents to Lord Dudley have resided, while near by are the ruins of a Benedictine monastery. The council propose the construction of a garden city of 3,000 houses, with social amenities, at a cost of nearly £2,000,000, and the scheme will form the basis of a Greater Dudley, half the land being in the area of an adjoining authority.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ARDSLEY.—Thirty-four parlour-type houses on the Blackgates housing estate, for the U.D.C. :—
*P. Canning ..... each £309 17 6

BANSTEAD.—Alterations to the kitchen block at the Cuddington Isolation Hospital, near Banstead Station, for the Epsom (Rural), Sutton, Carshalton and Leatherhead Joint Hospital Board. Mr. A. C. Williams, architect, Ashley-road, Epsom :—

H. Taylor & Son	£347 0
G. Shelton & Sons	330 0
*C. S. Norrington	314 8

(All of Epsom.)

BATH.—Houses on the Larkhall and Newbridge-road, for the T.C. :—
Nine pairs of non-parlour type houses (south aspect) at Larkhall—
*Warfield & Co. £8,150
Nine pairs of non-parlour houses (south aspect) at Newbridge-road—
*F. Toogood & Sons £8,172
Eleven pairs of non-parlour houses (north aspect) at Newbridge-road—
*Coles Bros., Ltd. £10,637
Eleven pairs of parlour houses (south aspect) at Newbridge-road—
*Hemery & Mullett £12,488 10
Two pairs of parlour houses (north aspect) at Newbridge-road—
*Hemery & Mullett £2,270 12

BATH.—Structural alterations to the Church Schools, for City Council :—
*J. Long & Sons, Ltd. £10,159

BEXHILL.—Twenty-four houses at Sidley, for the T.C. :—
*W. J. Simms, Sons & Cooke, Ltd. £11,240

BEXHILL.—Improvements to the mess-room and bathroom at the Gas Works and for additional lavatory accommodation, for the T.C. :—

Squirrell & Co.	£675 0
W. H. Sanders	541 5
Chas. Parker	537 10
*White Bros.	443 0

BIRKENHEAD.—Pavilion on the Boothby land, Birkenhead Park, for the T.C. :—
*W. V. Shallcross £114

BIRKENHEAD.—Ladies' conveniences in Victoria Park, for the T.C. :—
*H. T. Collin & Son, Birkenhead.... £115 5

BLACKPOOL.—Shops for Messrs. R. H. Hills Ltd., in Bank Hey-street :—
*Sir L. Parkinson & Son, Ltd.

BRIDLINGTON.—Lodge at the Borough Sanatorium in Bempton-lane, for the T.C. Borough Engineer and Surveyor :—
*W. Witting, Bridlington..... £534 13 6

BRIGHTON.—Certain repairs to the boiler-house roof at the Southwick Power Station, for the C.B. :—
*Field & Cox, ... £284

BULVAN.—Extension of Bulvan Church of England School. Mr. C. M. Shiner, architect, Grays :—
*Payne & Sons £479

BURNLEY.—Sixty-three houses at Stoop Farm site, for the Corporation. Mr. A. Race, Borough Engineer and Surveyor :—
*Thompson & Co., Burnley.

CARLISLE.—External painting of the following properties: 98 houses at Long Sowerby, 80 houses at Ridley-road and Buchanan-road, for the T.C. Mr. Percy Dalton, A.R.I.B.A., City Engineer and Surveyor, 18, Fisher-street :—
At Long Sowerby—*A. Armstrong.
At Ridley and Buchanan roads—*T. Armstrong.
(All of Halifax.)

CHESTER.—Repairs at Mill Farm and Ferry-lane Farm, for the T.C. :—
*T. Boddy, Broughton £540

DEWSBURY.—Additional class-rooms and new out-offices at Boothroyd-lane Council School, for the E.C. :—
Excavator, brickwork and mason—
*S. Scott & Sons..... £2,670 0 0
Plumber and glazier—
*J. Shepley 638 0 0
Joiner—
*W. West 571 14 0
Plasterers—
*G. Naylor & Son..... 133 1 9
Slaters—
*G. Fawcett & Son, Ltd..... 109 0 0

DUBLIN.—Making and fixing of laboratory benches, plumbing work, painting, &c., in the X-Ray Laboratory, Crooksling Sanatorium, Brittas, Co. Dublin, for the C.B. :—

North of England School Furnishing Co., Ltd., Darlington	£961 16 9
Joseph Dowling & Co., Dublin..	479 11 10
*J. Pemberton & Son, Dublin....	420 0 0
John Smith, Junr., Dublin.....	419 10 0
Jos. M. Marben & Co., Dublin..	365 0 0

(Portion of work.)

DUNDRY.—Hall at Dundry. Mrs. Bird, Secretary, Dundry Women's Institute :—
*Mr. Yarker, Bristol £475

EAST RAINTON.—Fencing boundaries of the site for the new Council school, for the Durham County E.C. Mr. F. Willey, F.R.I.B.A., architect, 34, Old Elvet, Durham :—
‡E. R. Davison & Sons, Ltd., Blaydon-on-Tyne £308 1 3

EPSOM.—Extension of the electricity works at Bromley Hurst, Epsom, for the U.D.C. Mr. A. C. Williams, Reids Building, Ashley-road, Epsom :—

W. H. Brown, Ltd., Leatherhead....	£3,535
Limpus & Son, Kingston.....	2,843
D. G. Somerville, Ltd., London.....	2,839
J. Crewdson, Horley	2,644
Cropley Bros., Ltd., Epsom	2,600
H. Taylor & Son, Epsom.....	2,587
*H. H. & F. Role, Epsom.....	2,519

EPSOM.—Provision of piggeries at West Park mental hospital, for the London C.C. :—

J. Hocking, London.....	£7,719
W. Akers & Co., Ltd., Croydon.....	4,965
W. Moss & Sons, Ltd., Cricklewood..	4,910
A. Logan, London	4,888
E. H. Smith, Croydon.....	4,780
W. H. Gaze & Sons, Ltd., Kingston..	4,753
J. Dorey & Co., Ltd., Brentford.....	4,692
J. Crewdson, Horley	4,545
J. Garrett & Son, London.....	4,460
Cropley Bros., Ltd., Epsom	4,412
Triggs & Co., London.....	4,343
W. H. Brown (Leatherhead), Ltd., Leatherhead	3,969
*H. H. & F. Roll, Epsom.....	3,673
W. Garner, Sutton	2,161
Architect's estimate	4,150

FALMOUTH.—Garage and workshop at Berkeley Vale, for Messrs. Rider & Sons. Mr. P. E. Stephens, A.R.I.B.A., Midland Bank Chambers :—
Builders' work—
*Strongman & Sons, Falmouth.... £1,291 10
Steelwork and roofing—
*Blight & White, Ltd., Plymouth 1,187 0

FOLKESTONE.—Removal of six galleries at Sidney-street Council school, for the E.C. Mr. A. E. Nichols, Borough Engineer :—
*T. W. Cole, Folkestone £109 19 6

GLASGOW.—Erection of Mearnskirk Sanatorium for the T.C. :—
Electric lighting, &c.—*Kennedy, Stark & Co., Glasgow.
Plaster work—*G. Rome & Co. (Glasgow), Ltd., Glasgow.
Glazier work—W. Purdon & Son, Glasgow.
Tile work—*Kean & Wardrop, Glasgow.
Terrazzo work—Toffolo, Jackson & Co., Glasgow.

GOOLE.—Public conveniences and clock tower in the Market-square, for the T.C. Mr. J. H. Castle, engineer and surveyor :—

*Platt & Featherstone, Ltd., Goole....	£2,680
Surveyor's estimate	2,675

GRAYS.—House at Palmers-avenue, Grays. Mr. C. M. Shiner, architect, Grays :—
*W. E. Walsham, Ltd. £1,320

GRAYS.—House in College-avenue, Grays, for Mr. R. Hall. Mr. C. M. Shiner, architect, Grays :—
*Hall Bros. £1,325

GRIMSBY.—Electric wiring of the tramways depot Victoria-street, for the C.B. :—
*T. Dickinson, Grimsby £110

GUILDFORD.—Electric wiring of 114 houses on the Aldershot-road site, for the T.C. :—
*A. Grove.

HARROGATE.—Painting and redecorating of the interior of the Royal Hall, for the Corporation. Mr. C. E. Rivers, Borough Engineer and Surveyor :—
*Brown Bros. & Taylor, Ltd., York..... £350

HEMSWORTH.—Erection and completion of the new Melbourne Hotel, Barnsley-road. Messrs. Garside & Pennington, architects and surveyors, Pontefract :—

	Contract No. 1.	Contract No. 2.
Wm. Horner, Pontefract	£9,257 12 10	£2,246 2 9
Wm. Hanley & Sons, Hemsworth	8,729 0 2	2,159 7 11
Fred Tree, Pontefract	8,589 11 10	2,172 10 0
Swift Bros. & Haslam, Doncaster	8,749 6 4	2,237 0 10
H. Arnold & Son, Ltd., Doncaster	9,354 0 0	2,357 0 0
Wm. Birch & Sons, York	8,428 0 0	2,183 0 0
Wade & Boucher, Wheatley	9,306 15 0	2,349 0 0
T. Jenkinson & Sons (Doncaster), Ltd., Doncaster	8,412 17 8	2,121 5 10

HIGH CLARENCE.—Improvements to the central heating at the Council school, for the Durham County E.C. Mr. F. Willey, F.R.I.B.A., architect, 34, Old Elvet, Durham :—
‡G. Fordy, Stockton-on-Tees.... £105 13 6

HORSFORTH.—Six houses at Brownberrie-lane :—
*J. B. Lee.

HUNTINGDON.—Small observation ward and bathroom at Isolation Hospital, for Joint Hospital District. Mr. G. Stevens, architect and surveyor, Town Hall, Godmanchester :—

Thackray & Co., Ltd., Huntingdon	£201	13	0
A. E. Gill, Offord, Hunts	179	19	0
Pettits, Ltd., Godmanchester	170	0	0
Allen & Son, Brampton, Hunts.	163	13	4
*V. Vinnell, Huntingdon	135	16	0

LEAMSIDE.—For (*a*) electric lighting installation and (*b*) installation of low-pressure hot-water heating apparatus, at the new Council school, for the Durham County E.C. Mr. F. Willey, F.R.I.B.A., architect, 34, Old Elvet, Durham :—

(*a*) ‡ F. Reid, Ferens & Co., Ltd., Sunderland	£262	3	0
(*b*) ‡ Steel & Co., Ltd., Sunderland	869	7	6

LEEDS.—Modern garage, saleroom and workshops at the White Horse estate, York-road, for Mr. R. H. Wood :—
*Dunhill Bros.

LIVERPOOL.—Reinforced concrete wall at the police station in Everton-terrace, for the T.C. :—
*Morrison & Sons, Ltd., Wavertree £2,211

LIVERPOOL.—Construction of new entrance roads, gates and railings, doctor's house, and porter's lodge at the Highfield Sanatorium, for the T.C. Land Steward and Surveyor :—
‡F. & T. Chappel, Liverpool £6,679
(Subject to M.H. approval.)

LIVERPOOL.—Conveniences on the Walton Hall estate, for the T.C. :—
*Tippin Bros., Liverpool £379

LIVERPOOL.—Shelter house in Sefton Park, for the T.C. :—
*Turner & Moss, Garston £194

LIVERPOOL.—Boundary wall to the Police Athletic Grounds, fronting Prescot-road, for the T.C. :—
*Roberts & Sloss, Liverpool £623

LIVERPOOL.—Twenty-eight parlour-type houses, for the T.C. Acting Director of Housing :—
‡Scarratt Bros., Liverpool ....each £525 5 3
(Subject to M.H. approval.)

LIVERPOOL.—Fifty parlour-type houses on Walton Hall-avenue, for the T.C. The Acting Director of Housing :—
‡J. Lewis, Liverpool £527
(Subject to M.H. approval.)

LONDON.—External painting of Libraries, for the Hackney B.C. :—

W. M. Brand	£448	3	0
C. Plumley	376	10	11½
E. W. Ball & Sons	367	5	8
A. C. Mackinlay	350	4	7
G. Stoddart & Sons	348	6	10
H. N. Clarke	336	12	1
E. J. Howard	283	3	3
*W. T. Ricketts & Sons	226	15	11

(All of London.)

LONDON.—Alterations and addition to 79, East Hill, for the Wandsworth B.C. :—
‡C. H. Gibson, Ltd., Purley £1,370 10

LONDON.—Repairs and redecorations at the Crawford-place Dwellings, and for the erection of a small perambulator shed in the courtyard of the Dwellings, for the St. Marylebone B.C. Borough Engineer :—

J. Simpson & Sons	£243	10	
H. Lilly	225	0	
H. A. Brown	217	0	
Webster & Son	212	10	
*C. Tavener & Sons	191	0	

(All of London.)

LONDON.—Fourteen flats on the undeveloped portion of the Threshers-place island site, for the Kensington B.C. :—

Leslie & Co., Ltd.	£10,541
A. Roberts & Co., Ltd.	10,494
G. N. Watts, Ltd.	10,100
Hill & Gurr	10,095
G. B. Farrar & Co.	9,962
J. P. Williams, Ltd.	9,890
G. E. Everitt & Sons, Ltd.	9,820
J. Willmott & Son (Hornsey), Ltd.	9,625
F. D. Hidden & Co., Ltd.	9,559
F. G. Cressy, Ltd.	9,400
‡Wheeler Bros.	8,349

LONDON.—To make safe for utilising the large room on the first floor of the Manor House Library, for the Lewisham B.C. :—
*Burke, Collins & Co., Ltd., Lee £119 5

LONDON.—Construction of a pipe subway beneath the north side of Houndsditch for a length of about 500 ft., for the City Corporation :—

Greig & Matthews	£6,456	16	10
Sumner, Mayon & Haley, Ltd.	5,890	3	9
Kinnear, Moodie & Co.	5,661	17	8
John Mowlem & Co., Ltd.	5,552	19	0
John Cochrane & Sons, Ltd.	5,458	15	9
D. R. Paterson, Ltd.	5,322	7	3
Thomas Muirhead & Co., Ltd.	5,128	9	8
Wm. Muirhead, Macdonald, Wilson & Co., Ltd.	5,109	0	9
Jas. Byrom, Ltd.	4,932	10	0
Daniel T. Jackson	4,620	14	8
Commercial Structures, Ltd.	4,550	7	2
*W. H. Lorden & Son, Ltd.	4,322	3	0

LONDON.—Baths and washhouses at Trafalgar-road, East Greenwich, for the Greenwich B.C. :—
*Holliday & Greenwood £121,908

MANCHESTER.—Gymnasium at Harpurhey High School for Girls, for the E.C. :—
‡Tucker & Young, Ltd., Manchester.

MANCHESTER.—Painting at Cheetham, Harpurhey, and Moss Side branch libraries, for the T.C. :—
*Jones & Jackson, Ltd., Manchester.

MANCHESTER.—Extensions to the premises of the Planet Foundry Co., Ltd. Messrs. Lindley & Gibson, Architects, Market-avenue, Ashton-under-Lyne :—
*E. Marshall & Co., Ltd., Ashton-under-Lyne.
Steelwork—
*Messrs. Lambourne & Co., Manchester.

MIDDLETON.—Tower to St. Michael's Church at Tonge, for the Parochial Church Council. Messrs. Austin & Paley, architects, Castle Hill, Lancaster :—
Mason—
*Grundy, Sons & Co., Middleton £6,300

NELSON.—Reconstruction of the warehouse premises at Nelson, Lancs, occupied by Messrs. J. Crabtree, Ltd. Messrs. Aspden & Johnson, architects, 104, Manchester-road, Burnley :—
**Joiners*—J. H. Naylor & Son, Ltd., Burnley.
**Plumber*—T. Rycroft, Nelson.
**Plasterers*—R. Guest, Brierfield.
**Engineers*—W. Roberts & Sons, Ltd., Nelson.
**Hoists*—S. Baldwin & Heap, Ltd., Burnley.

NEWCASTLE-UNDER-LYNE.—Hot water installation in the 96 non-parlour houses and also the additional six non-parlour houses on the Liverpool-road site, for the T.C. :—
*Heath & Son ..... each £14 15

NEWCASTLE-UNDER-LYNE.—Six non-parlour houses and eight parlour houses on the Liverpool-road site, for the T.C. :—
*Heath & Son.

NORTH DEVON.—Extension of the Edgehill College buildings, for the Trustees. Messrs. Fred. Rowntree & Sons, architects, 11, Hammersmith-terrace, London, W.6. Quantities by the architects :—

Y. J. Lovell & Son, Paddington	£15,883
Mardon, Ball & Co., Farnham	14,825
W. T. Nicholls, Ltd., Gloucester	14,455
Hy. Glover & Son, Bideford	14,075
*Edmund Ellis & Son, Bideford	13,648

NORTHAMPTONSHIRE.—Reconstruction of the Northampton-Market Harborough main roads, for the C.C. :—
*Limmer & Trinidad Lake Asphalt Co., Ltd. £126,754 7 4

NORTH WINGFIELD.—Miners' Welfare Club, North Wingfield. Messrs. T. Bamber & Son, architects, Derby-road, Heanor :—
*T. Wootton, Langley Mill.

PETERBOROUGH.—Twenty-nine houses in Elm-street, and 48 houses in Hereward-road, for the T.C. :—
*J. W. C. Barber £33,110

PORTSMOUTH.—For new vestries at St. Simon's Church. Mr. S. E. White, architect, 73, Waverley-road, Southsea :—

J. Salter	£1,687
Porter & Son	1,661
Tanner Bros.	1,615
F. J. Privett	1,585
John Lay & Co.	1,270
*Howe & Bishop	1,195

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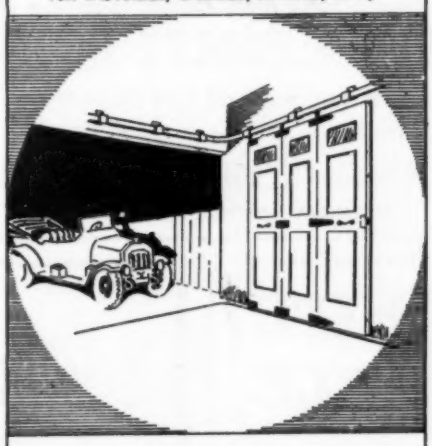

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PRESTON.—Retaining wall at intake chamber on the river, for the T.C. :—
*Mitchell Conveyor & Transporter Co., Ltd. £2,600

PRESTON.—Tramway shelters, for the T.C. :—
Tulketh-road—
*Foster Bros., & Co., Ltd. .. £118 1 0
Harris-street—
*R. Mercer, Ltd. 103 14 6

PRESTON.—Rebuilding of the first section of premises at Fishergate, for Mr. F. Matthew. Mr. Alfred C. Lillie, L.R.I.B.A., of Preston :—
*J. Cartmell, Ltd., Preston.
Electricians—*E. Dewhurst, Ltd., Preston.
Heating Engineers—*Dilworth & Carr, Preston.
Steelwork—*J. Booth & Sons, Bolton.

REDRUTH.—Cattle house at Lower Cardrew. Mr. L. Winn, L.R.I.B.A., architect :—
*H. J. Paul, Redruth.

RHYDCYMERE.—Bridge for Llandilofawr and Llanybyther Joint R.D.C. Mr. D. S. Rees, Highway Surveyor, Llanybyther :—

W. Williams, Bryngranell Caio	£2,175
D. J. Evans, Llanybyther	1,907
Watkin Davies, Llanybyther	1,845
R. Williams, Manordilo	1,760
Henry Evans, Llandilo	1,750
D. Howells, Son, & Co., Llandebie	1,740
*W. A. Jones, Milo, Llandebie	1,723

ROCHFORD.—Twenty houses in the parish of Canewdon, and 12 in the parish of Little Wakering, for the R.D.C. Mr. A. C. Madge, Surveyor, Rayleigh :—
Little Wakering—
*Wirtus & King, Ltd. £5,720
Canewdon—
*F. A. Fordham & Son 9,200
(Subject to M.H. approval.)

ROCHFORD.—Thirty-four houses, for the R.D.C. Mr. A. C. Madge, Surveyor, Rayleigh, Essex :—
*E. G. Pryor, Westcliff-on-Sea £18,598
(Subject to M.H. approval.)

ROMFORD.—Extension of offices at Hornchurch road, for the South Essex Waterworks Co. Mr. C. M. Shiner, architect, Grays :—
*W. J. Maddison, Ltd. £9,761

ROWLEY REGIS.—Two public conveniences (and for incidental works), one at the Knowle, Dudley-road, Rowley Regis, and one at Regis-road junction with High-street, Black Heath, for the U.D.C. :—
*W. Cooper, Black Heath £986

ST. HELENS.—Open-air school, in respect of the following trades : (1) General contracting ; (2) plastering and slating ; (3) plumbing, lighting, glazing and painting, for the E.C. Messrs. Biram & Fletcher, FF.R.I.B.A., architects, George-street, St. Helens. Quantities by Messrs. Wainwright & Gornall :—
General contract—*W. H. Davey & Co., Runcorn.
Roof tiling and plastering—*W. H. Davey & Co., Runcorn.
Plumbing, Glazing, &c.—*C. A. Critchley, St. Helens.

SCARBOROUGH.—Houses, for the Corporation :—

35 Houses—		
*Jackson & Oates	£15,025	
48 Houses—		
*F. Bate	20,360	
4 Houses—		
*Platt & Featherstone, Ltd.	1,716	
6 Houses—		
*J. M. Hall & Co.	2,253	
6 Houses—		
*A. Lyons	2,310	
House—		
*J. M. Hall & Co.	567	
2 Bungalows—		
*F. Bate	860	
4 Houses, flatted type—		
*W. E. Clark	1,700	

SHEFFIELD.—Filter house, Ewden Valley, for the T.C. Mr. W. G. Davies, A.R.I.B.A., City Architect :—
*T. Wilkinson & Sons, Ltd., Sheffield.

SLOUGH.—Internal decoration of the 242 houses, for the U.D.C. :—
*Borrman & Sons, Wallington £2,660

SOUTH HARROW.—Provision of dressing accommodation at the Playing Field at South Harrow, for the London C.C. :—

Rowley Bros., Ltd., Tottenham	£2,595
J. Harrison & Co., Camberwell	2,589
Humphreys, Ltd., Knightsbridge	2,417
W. Duncan Tucker & Sons, Ltd., Tottenham	2,170
W. Harbrow, Ltd., Rotherhithe	2,069
Merton Abbey Joinery Works, Merton Abbey	2,060
Payne Bros., Watford	1,955
*Harrison Smith Buildings, Ltd., Birmingham	1,694
Architect's estimate	1,896

SOUTH SHIELDS.—206 houses on the Cleadon Park housing estate, east side of Sunderland-road, for the Corporation. Mr. S. C. Stanton, Borough Engineer. Quantities by the Borough Engineer :—
*H. E. Pitt, Ltd., Sunderland £96,046 4

SOUTHEND-ON-SEA.—Two changing rooms on the playing fields of the Southend High School for Boys, for the C.B. :—

*W. J. Cearns £460

SOUTHEND-ON-SEA.—Alterations and painting, &c., at London-road, for the C.B. :—

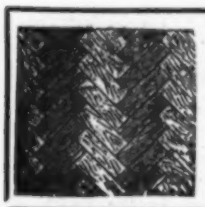
*Johns Bros. £114 10 10

SOUTHWICK.—Twenty self-contained flats in St. Aubyns-road, Fishersgate, for the U.D.C. Mr. G. W. Warr, surveyor :—

	Alternative Tenders.		
	(1)	(2)	(3)
Sherren, Ltd., Storrington	£5,023	£5,176	£3,234
W. & H. Bartlett, Haywards Heath	4,596	4,863	3,066
Gladstone, Brighton	4,372	4,502	2,668
J. Bodle, Ltd., Eastbourne ..	4,289	4,426	2,693
‡Sparks, Worthing	4,353	4,453	2,605

STOCKPORT.—Public washhouses, Bann-street (off King-street West), Stockport, for the C.B. Mr. H. Hamer, Borough Surveyor :—

*W. B. Beattie, Stockport £6,829



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STOCKPORT.—Congregational Church in Wellington-road. Messrs. Wrathmell & Blackshaw, architects, Queen's Buildings, St. Peter's-square :—

General Contractors—

*J. J. Oakes & Sons, Ltd., Stockport.

Heating engineers—

*Craig & Mills, Ltd., Manchester.

Electric lighting—

*McClure & Whitfield, Stockport.

SUNNISIDE.—Electric lighting at the Crook Council school, for the Durham County E.C. Mr. F. Willey, F.R.I.B.A., architect, 34, Old Elvet, Durham :—

‡Sims & Richardson, Newcastle-on-Tyne £134 10

SUTTON.—For (*a*) 36 houses in Clensham-lane and (*b*) four houses at the junction of Erskine-road, for the U.D.C. :—

*Keast & Broomfield.

THORPE BAY.—Lloyds Bank branch at Thorpe Bay. Mr. George F. Grover, architect, The Broadway :—

A. E. Symes, Stratford	£8,955
Ventris & King, Southend	7,995
H. R. Wilkinson, Southend	7,920
A. J. Arnold, Leigh	7,798
J. W. Atkinson, Southend	7,576
*J. G. Gray, Coventry	7,400

TYNEMOUTH.—Six houses on the Sunniside Field site, Balkwell, for the T.C. :—

*W. H. Browse £3,192 12 11

UPPINGHAM.—Twelve cottages; four each at North Luffenham, Barrowden and Morcott, for the R.D.C. :—

North Luffenham and Barrowden—

*E. Ireson, Stamford £1,827 13 6

Morcott—

*E. Ireson, Stamford £1,831 10 4

WAKEFIELD.—Rebuilding of the Welcome Inn, Messrs. Garside & Pennington, architects, Ropergate, Pontefract :—

	Contract No. 1.	Contract No. 2
J. Lockey, Wakefield	£6,240 0 0	£931 10 0
Geo. Bagnall, Stanley ..	6,172 0 0	1,090 0 0
Wm. Birch & Sons, York	6,345 0 0	927 0 0
Geo. Hope, Wakefield ..	6,348 15 6	887 19 2
W. J. Kendall & Co., Wakefield	7,000 0 0	1,000 0 0
H. Bastow, Wakefield ..	6,192 1 6	935 0 0

WALLINGFORD.—External decorative work to houses in South-road, Didcot, and at East Hagbourne and Cholsey (total number of houses 61), for the R.D.C. Mr. F. H. Floyd, Market-place, Newbury :—

Boshers (Cholsey), Ltd., Cholsey	£371 0 0
A. J. Gooding & Sons, Dorchester, Oxon	243 15 6
Dore, Hartell & Co., Ltd., Bristol	214 8 0
W. & H. Aldridge, Benson	213 2 6
H. Lawrence & Sons, Worksop..	183 0 0
F. Shayler, Didcot	150 0 0
W. J. Dowling, Middlesbrough..	115 8 0

WALTON-ON-THE-NAZE.—War memorial and enclosure, on the Parade, for the U.D.C. Mr. A. J. Meakins, surveyor :—

Gladwill & Co.	£144 5
*E. Hobern	130 0

All of Walton-on-the-Naze.)

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WATFORD.—Construction of a new bridge to carry the Watford by-pass road, Section 2, over the L. & N.E. Rly. and Bunn's-lane, at Bunn's-lane, Hendon, for the Middlesex C.C. :—

W. Jones & Sons, Ltd.	£17,573 0 0
W. T. Speight	17,572 17 3
Jackaman & Son	17,480 11 4
‡W. & C. French	13,866 10 6

WEST HARTLEPOOL.—Sub-stations at Seaton Carew and Brinkburn-road, for the C.B. :—

*W. W. Brazell, West Hartlepool.

WEST HARTLEPOOL.—Painting of the interior of the art gallery and museum, for the C.B. :—

*Stokell, Ltd., West Hartlepool.

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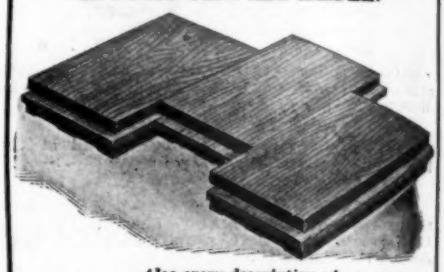
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